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Wind, Barend

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Institutions and Inequality

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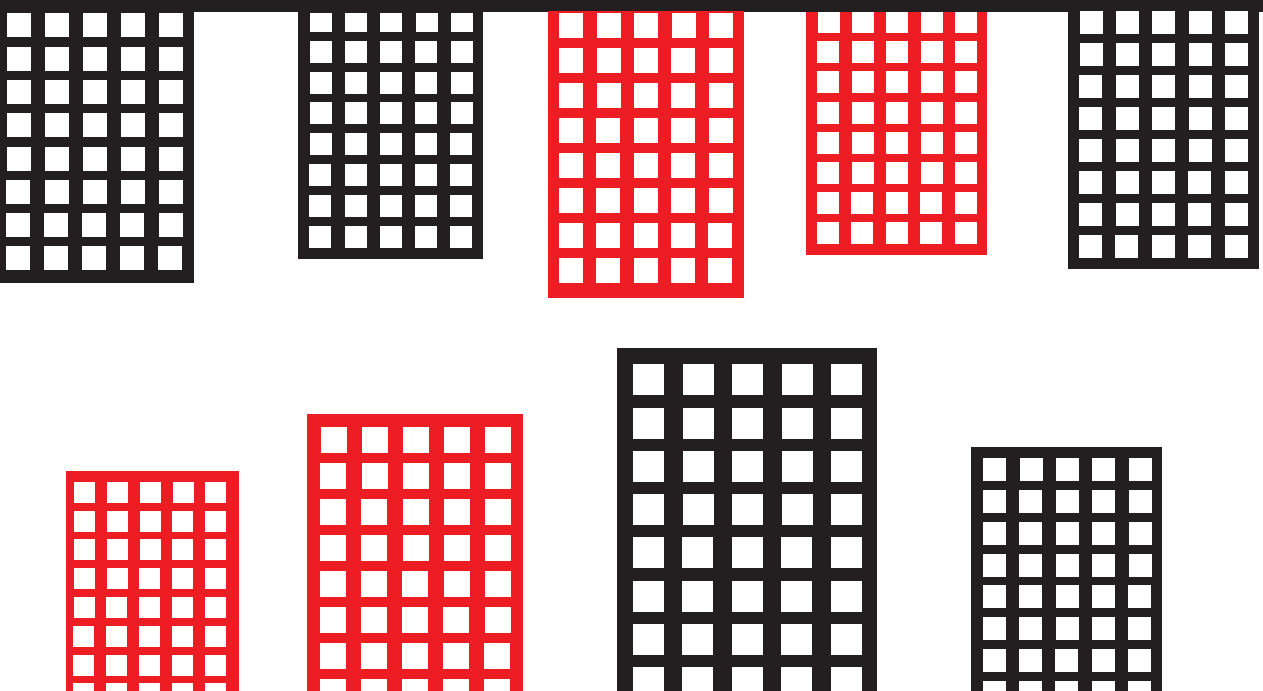

Housing Wealth in Europe

Institutions and Inequality

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Promotor:	Prof. dr. P.M. de Graaf
Copromotor:	Dr. C.L. Dewilde
Overige leden:	Prof. dr. P.J. Boelhouwer Prof. dr. C.H. Mulder Prof. dr. G. Baeten Prof. dr. R.J.A. Muffels Dr. M.B. Aalbers Dr. P. De Decker

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CHAPTER 1

Societal Trends and Housing Wealth Inequality: an Introduction

Why housing wealth?

October 1992. My parents were in their mid-thirties when we moved from a social rental apartment in De Pijp, one of Amsterdam's famous working class neighborhoods, into an owned home in a brand new neighborhood at the western edge of the city. As a three year old child, this was the place where I could go to school and play in a clean and safe environment. However, the home came with a price: it costed around 72.000 euro (including the land lease) and the mortgage payments were almost unbearably high for a couple depending on a one-and-a-half income, working in health care. Twenty-five years later, my parents are still paying-off the initial mortgage, although the home is worth nearly 300.000 euro. Their former neighbors, with similar incomes – who stayed in their rental home – do not even come close to having one tenth of that amount on their savings account. However, the young urban professionals that *en masse* bought apartments in the neighborhood right after my parents left, made far larger capital gains on the housing market. For my parents, it could have been worse. Their new neighbors divorced in the beginning of the new millennium, after which the remaining husband maximized equity release to buffer his rocky labor market career. When he moved out in 2016, his outstanding mortgage was still 260.000 euro. Retrospectively, one could conclude that my parents spectacularly improved their position in socio-economic terms by moving from one housing tenure into another at the right moment, staying employed and married. My parents are not alone in their experience.

Over the past thirty years, a silent societal transformation has taken place across Europe: homeownership rates have increased rapidly, and the meaning of owning one's home has changed. The upswing of homeownership rates in continental Europe is the result of government interventions and deregulations of mortgage- and housing markets, which encouraged (lower-income) households to enter homeownership at a younger age (Angelini *et al.*, 2013; Doling *et al.*, 2003). Whereas housing was previously mainly defined by its shelter function, the market-driven expansion has increased the importance of its investment function, both for households and the economy

at large. Housing wealth (the value of the home minus outstanding residential debts) expresses the value of housing-as-investment. In other words, the significance of housing for the socio-economic stratification has increased, but is still under-researched (Dewilde, 2011). This observation is the starting point for the HOWCOME-project, where this dissertation is part of. There are two reasons to assume that the inequality in terms of housing wealth among owner-occupiers has increased during the expansion of homeownership. First, the social profile of homeownership has diversified when owner-occupation came within the reach of the lower middle class (Doling *et al.*, 2003). It is unlikely that those with a lower social status accumulate similar amounts of housing wealth compared to those with a higher social status, since they are not able to invest similar amounts. Second, (residential) real estate has functioned as a sponge, absorbing capital from the financial sector, which has resulted in inflated and volatile house prices (Fernandez and Aalbers, 2016; Schwartz and Seabrooke, 2008). In such a context, the location and timing of home-buying heavily impact upon the accumulation of capital gains and losses. Different European countries have pursued homeownership in a different fashion, based on a different ideology (Doling and Ronald, 2010; Ronald, 2008; Watson, 2009). As a result, there are cross-country variations regarding the impact of homeownership on stratification.

In this dissertation, I analyze housing wealth inequality between social classes and age cohorts on the basis of (interactions between) individual life courses and the institutional context, following an internationally-comparative perspective. The life story of my parents and their former and new neighbors shows that it is always a combination of both factors that explains how the housing market affects one's social position. Without housing policies that increased the attractiveness of homeownership, my parents would not have started accumulating housing wealth at all, whereas they would have accumulated far less if they would have needed to release equity due to a period of unstable employment or when they would have been forced to sell the home as the result of a divorce.

Housing wealth is on its way of becoming one of the major cleavages in contemporary societies. I will give four examples that

illustrate that housing wealth is increasingly determining the socio-economic status and life chances for people with a different social background. First, in the UK, there are fears for the emergence of a 'generation rent' due to a house price boom, combined with a stagnant income development among young people in the lower- and middle class. Because existing homeowners have easier access to housing finance, sub-letting a second property to youngsters who cannot obtain a mortgage is very profitable (Lund, 2013). Second, in Spain, an anti-eviction movement (*Plataforma de afectados por la hipoteca*) defends households that face eviction and residual debts in the aftermath of the global financial crisis of 2007. Those who bought their home in the run-up to the crisis fall at the wrong side of the increasing cleavage between housing-haves and housing-have-nots when they are forced to sell the home due to a spell of unemployment in their labor market career (Cano Fuentes *et al.*, 2013). Third, in the Netherlands, were real house values tripled between the 1970s and the beginning of the global financial crisis in 2007 (OECD, 2014), both private rental housing and homeownership has become increasingly unaffordable in the last decade. In Amsterdam, starters on the housing market increasingly need their parents' housing wealth as a collateral for a mortgage loan, and use their social- and cultural capital to find a place of their own (Hochstenbach and Boterman, 2015). Fourth, the other side of the 'housing wealth cleavage' grows in Europe's capital cities that are well-embedded in global production chains. In cities like London, Paris, Amsterdam and Berlin, the sale of penthouses for amounts up to 25 million euros shows that real estate has become an absorber of international capital (Fernandez *et al.*, 2016). It is this context in which European citizens, who generally do not have a speculative motive (Smith *et al.*, 2009), navigate through the housing market. Although the cleavage might have increased across Europe, which groups are better- or worse-off is determined by national housing, spatial and economic policies. These institutional differences form the core of most of the empirical work of this doctoral thesis.

In this introduction, I first position housing wealth in the two fields this dissertation aims to make contributions to: stratification research and housing studies. Second, I will present a theory of

housing wealth accumulation. Here, several mechanisms of housing wealth inequality are highlighted that are tested in the empirical chapters of this dissertation. Third, I will describe the socio-economic and socio-spatial trends that form the stage for the unfolding increase of housing wealth inequality. These major trends are often described as the consequence of neo-liberal policy regimes that were set in motion across Western Europe from the 1980s onwards. Instead of ascribing all distributive developments in recent history to a 'neoliberal project', I point at various policies that increase or mitigate socio-economic and socio-spatial inequality. In this way I attempt to shed light on the country-specific policies, regulations and characteristics that impact upon housing wealth inequality. They can be considered as the mechanisms that exacerbate or mitigate housing wealth inequality. If housing wealth inequality is considered to be a social problem, then these mechanisms are the buttons politicians can push to alter its distribution in favor of certain groups. Finally, I will discuss the research questions and the research design, after which this introduction finishes with an outline of the entire dissertation.

A multi-disciplinary approach

The concept of housing wealth is located at the margins of the fields of sociology, economics and geography, but is situated right at the core of their intersection. In this dissertation, I therefore aim to contribute to ongoing debates in two multidisciplinary domains: stratification research and (European) housing studies. I will highlight how the understanding of housing wealth inequality contributes to progression in both fields.

The sociological domain of stratification research traditionally deals with status differences between individuals based on their occupation (Erikson *et al*., 1979). When the male breadwinner model began to erode and occupational stability started to decrease the focus on occupational inequality did no longer capture the relevant form of inequality in society, especially due to the rise of more complex household arrangements, such as the one-and-a-half and dual earning household. The introduction of economic concepts in stratification research resulted in a focus on income inequality (Alderson and

Nielsen, 2002; Harrison and Bluestone, 1990). Across the western world, income inequality decreased during the heydays of the welfare state (1945-1975), but increased rapidly after the 1980s due to globalization, welfare state restructuring and increasing female labor force participation (Alderson *et al.*, 2005). Only recently, wealth is recognized as an equally important dimension of socio-economic stratification, alongside income (Spilerman, 2000). The influential work of Piketty shows that the amount of capital relative to the national income has increased from less than 300% in the 1950s to more than 600% in the first decade of the new millennium in Western countries such as France and the US (Piketty, 2014). The wealth stock started to grow after the welfare state restructuring of the 1980s that coincided with a wave of financial deregulation, which has increased corporate profits at the expense of workers' wages. This makes some commentators conclude that the reduced incomes at the bottom deciles of the income distribution end up as wealth in the hands of those at the top of the distribution. However, Piketty's graphs show, notwithstanding cross-country differences, that the enormous growth of the total stock of wealth since the 1980s is mainly the result of the rise of housing wealth (Piketty, 2014). Whereas Piketty mainly overlooks this point, Fernandez *et al.* (2016) consider the gradual financialization of housing as one of the main engines of rise of financialized capitalism in the last three decades. The liberalization of finance has created an enormous stock of footloose capital looking for investment, which is absorbed by real estate. In this way, housing assets have become a backbone of the global financial system (Aalbers, 2008). This dissertation aims to contribute to a next step in stratification research, going beyond wealth as something monolithic, and to reveal the distribution and drivers of housing wealth in different institutional contexts.

The distributional outcomes of housing policies lay at the core of the field of housing studies. Early contributors to the academic debate around European housing systems have tried to incorporate housing in theories of welfare state divergence. In the early days, the focus has mainly been on the availability, affordability and nature of social rental housing. Jim Kemeny for example, distinguishes between two types of rental markets: unitary (cost-rental open to the

entire population) and dualist (a means-tested social segment), of which the former generates much smaller levels of stigmatization and segregation (Kemeny, 1981). When studying Europe, the field of housing studies has been preoccupied with the entry of households into homeownership. Cross-country differences are explained by differences regarding the political economy of the respective countries. The term housing regime was coined to describe the system of provision, allocation and consumption of housing since its distributional outcomes cut through Esping-Andersen's (1990) famous welfare state typology (Torgersen, 1987). Whereas the democratic class struggle is the engine under the emergence of welfare state regimes, housing researchers have tried to establish the concept of housing classes to explain the emergence of different housing regimes. The democratic class struggle is the process in which political parties, representing certain social class backgrounds, form alliances and shape the scope and generosity of social benefit- and social insurance systems (Esping-Andersen, 1990). The idea behind the existence and centrality of housing classes was fueled by the house price boom in the UK in the 1970s, which created a cleavage between asset-rich and asset-poor, cutting through the traditional class society (Rex and Moore, 1967; Saunders, 1984; Thorns, 1981). Although homeowners can be expected to have different interests than tenants (and vote differently – see André and Dewilde [2016]) the focus has shifted to the interaction between housing outcomes and other forms of socio-economic inequality. Economic theory has been incorporated in housing studies to quantify the impact of housing on socio-economic inequalities by expressing the benefits of housing as an addition to the income (a flow measure). First, the concept of imputed rent shows the difference between the housing costs and the costs of renting the same dwelling on the free market. The housing costs are usually lower than this and can therefore be seen as an addition to the income (Frick *et al*., 2010; Yates, 1994). Second, the user-costs of housing express the rent for tenants and the monthly mortgage interest payments minus house price appreciation / depreciation for homeowners. Both measures provide an indication of the possibility for financial- and housing wealth accumulation as a result of the housing situation, but

do not express it as a stock measure (the total accumulated housing wealth at a certain time) (Haffner and Heylen, 2011; Quigley and Raphael, 2004). Recently, housing scholars have argued that housing wealth holdings constitute a connection between housing regimes and welfare states: housing wealth can be used as a collateral for asset-based welfare. In such a system, households use their own wealth holdings to cater for individual welfare needs in times of income loss due to unemployment, sickness or retirement from the labor market (Doling and Ronald, 2010). The distribution of housing wealth across social classes and age groups, determining whether it can function as a safety net for different social groups, never received much attention due to conceptual fuzziness as well as data limitations.

Defining housing wealth

In most studies, housing wealth is defined in a rather simple, straightforward way: it is the value of the owned home, minus outstanding mortgage debts. In other words: it is the cash flow to the household after selling the home. However, (housing) wealth is different from other measures of socio-economic inequality since it is accumulated over the life course (Spilerman, 2000). A dynamic conceptualization can capture the mechanisms that are at play during the entire period of accumulation. DiPrete and Eirich (2006) argue that the accumulation process of wealth should be regarded as a process of cumulative causation, in which the current stock of wealth is the result of the initial input and the rate of return. By conceptually disentangling six dimensions of housing wealth (three static and three dynamic), it becomes clear how life courses and institutions affect the nature of housing wealth inequality in a country. A schematic representation of the constituents of housing wealth inequality is presented in Figure 1.1.

Let us start with defining the three static dimensions of housing wealth – the only dimensions that are relevant at the moment of purchase. These are the dimensions that shape the relative position of the new homeowner relative to other members of the society. First of all, there is the ownership dimension, separating homeowners from tenants. It is exactly therefore that homeownership is celebrated as a

mechanism behind the democratization of wealth (Turner and Luea, 2009). Housing wealth is logically reserved to homeowners. Second, there is the dimension 'purchase price', separating those who bought more expensive homes from those who bought cheaper homes. This is what DiPrete and Eirich (2006) would call the input of the process of cumulative causation. Partly, this dimension shows the potential for housing wealth accumulation, since many homeowners buy their home with a repayable mortgage loan. Third, I distinguish the 'size of the mortgage' as separate dimension. The size of the mortgage and the purchasing price are connected to the affordability of homeownership. House prices increase when interest rates decrease, since a larger credit can be obtained from the bank on the basis of the same income. The actual housing wealth at the moment of purchase is nothing more than the price of the dwelling, minus the outstanding mortgage debt. In the case of a first-time homebuyer, this is the down-payment for the mortgage. In countries such as the Netherlands, where loan-to-value ratios often exceeded the value of the house, homeowners might start their housing career with negative housing wealth (CBS, 2015).

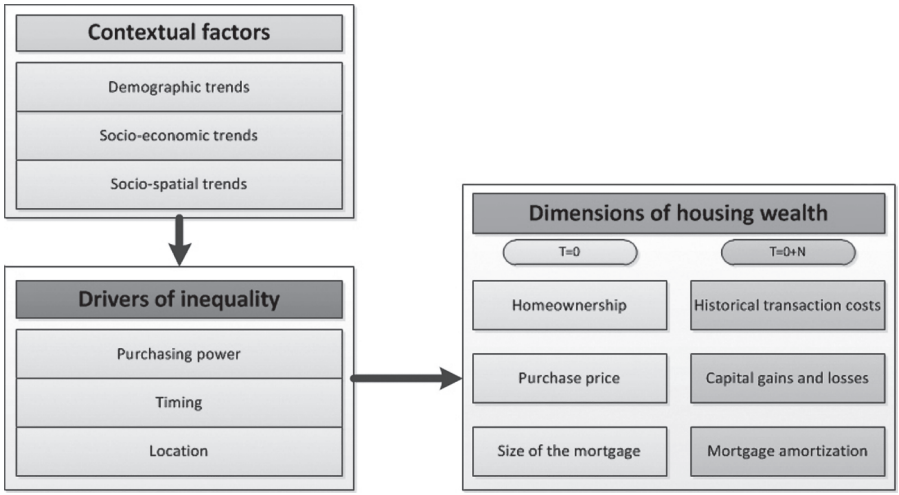
Three dynamic dimensions of housing wealth cause a change in the housing wealth holdings when time unfolds. The first dynamic dimension of housing wealth is the 'mortgage amortization'. Paying-off one's mortgage, increases the housing wealth gradually over time, until it has the same value as the initial size of the mortgage (typically between 15 and 30 years). Moreover, investments in the home that enhance or maintain its value should be placed under this header (considered as part of the user-costs of housing as well [Haffner and Heylen, 2011]). The second dynamic dimension consists of 'capital gains and losses'. Local housing market dynamics determine price increases and decreases and reflect directly on the housing wealth. This is what DiPrete and Eirich (2009) would call the 'rate of return'. Finally, the number of moves might negatively impact upon housing wealth holdings due to the transaction costs that are linked to residential mobility. In short, the six dimensions of housing wealth can be quantified in the following equation of housing wealth: housing wealth = homeownership * (purchase price – mortgage + mortgage

amortization + house price gains – historical transaction costs). Other costs of homeownership (maintenance costs, depreciation costs etc.) are left out of the equation since tenants pay for them through their rents. Furthermore, in this way, housing wealth is a very clear and tangible resource: the amount to receive after the sale of the home.
The different dimensions of housing wealth are affected by social-, economic- and housing policies separately (see Figure 1.1). These policies might even have outcomes on individual dimensions that counterbalance each other. To mention a few, housing grants for low-income households reduce the price they pay for their home (dimension purchase price), whereas generous systems of mortgage interest tax deduction decrease the attractiveness of paying-off the mortgage (dimension mortgage amortization). The deregulation of the mortgage market increases loan-to-value ratios and impacts upon different dimensions simultaneously. When the people are granted a higher initial mortgage loan (dimension initial size of the mortgage), they are able to invest more in housing (dimension purchase price) at an earlier stage of their life course. A similar argument can be made for a reduction of interest rates. It allows households to take out larger loans due to lower monthly costs, which drives up house prices. If a local government invests in the spatial quality of certain neighborhoods, or in urban restructuring, homeowners in that area will profit from rising house prices (dimension capital gains and losses).

From the economists' side, the concept of housing wealth is sometimes criticized for being an 'illusionary resource'. Bonnet et al. (2014) argue that increasing rent prices are a more appropriate way to measure housing market outcomes in terms of wealth, since they represent the possible flow of capital that can be realized by the ownership of the home. In line with research on the intergenerational transmission of homeownership (e.g. Helderman and Mulder, 2007), I argue that housing wealth contributes to socio-economic inequality, even when it is not liquidated or expressed as a flow-measure. First, for new entrants to the market for owned homes, accumulating housing wealth becomes ever more expensive when house prices increase (Lund, 2013). Second, uneven price cycles on local housing

market might result in windfall gains and losses when moving between neighborhoods or regions at the right moment (Hamnett, 1999). Third, the housing wealth stock turns into a very real source of inequality when it is transferred from one generation to another. Migrants and lower class citizens often do not have relatives that reside in homeownership and can help them to get on the housing ladder with their housing wealth.

Figure 1.1. Conceptual model with core concepts used in the empirical chapters.



The meaning of housing wealth

As a consequence of a dialectic between cultural- and institutional factors, housing wealth has a different meaning in different contexts. First of all, it represents different levels of housing quality. More importantly, housing wealth itself has a different meaning in different contexts. This has serious consequences for the interpretation of housing wealth inequality. Whereas quantitative cross-country comparisons mainly have overlooked this point, some conclusions can be drawn from qualitative studies on the meaning of homeownership in different countries. I try to capture the meaning of housing wealth by answering two questions. First: to what extent are the homeowners entitled to their housing wealth? Second: to what extent can the housing wealth be converted into financial capital?

Degree of ownership

The degree of ownership determines to which extent homeowners can cash their housing wealth. The degree of ownership is the result of the way in which property rights are defined (institutional factor) and the role of the family in housing provision (cultural factor).

The degree of ownership displays large variation across European countries. In the Mediterranean countries, but especially in the post-socialist states, property rights are not always well-defined due to informal construction and incomplete privatization and restitution processes. The absence of regulatory spatial plans, or the limited capability of governments to enforce these plans, functions as an incentive for people to opt for informal self-construction. Especially in the post-socialist countries on the Balkans, informal settlements have been an important element of the housing system after the fall of the communist regimes (In Albania up to 30% of the housing stock) (Gabriel, 2007; Tosics and Hegedüs, 2002; Tsenkova, 2008). However, there are different degrees of informality. Some informal settlements are built on land on which the builders have a legal claim, whereas others build on communal lands. In most post-socialist states, efforts have been made to regulate and legalize informal settlements. Even in the case of legal construction, property rights are not always clearly defined in these countries. Due to absent or incomplete property registers as well as incomplete processes of restitution (e.g. transfer of housing to the owner before nationalization), property rights are often insecure. In the case of incomplete privatization processes, only the use rights can be bought and sold. Moreover, the ownership status of collective indoor and outdoor spaces remains unclear (Palacin *et al.*, 2005; Pichler-Milanović, 1999; Tsenkova, 2008). Altogether, there is a ladder of informality that impacts upon house values, and the opportunities one has to sell the home. In other words: informality limits housing wealth and reduces its accessibility.

In most of Western Europe, housing wealth is a characteristic of an individual or a couple. The person who buys the house, also decides on the sale and cashes the benefits. Therefore, only the buyer and spouse (depending on the partnership contract) can claim the housing wealth. In countries where the family plays a larger role in the provision of

welfare, the individual entitlement to housing wealth is blurred. On the basis of qualitative observations, Ronald (2004) notes that "[e]ven the privately owned house or home constitutes a physical and institutional basis of collectivism and welfare and is thus emphasized as a space of 'family privatism' rather than privatism in itself" (p. 57). Other authors, dealing with the role of the family in Southern Europe, stress that family support for the purchase of a house translates in expectations and obligations towards these family members. The decision to buy or to sell a dwelling should be portrayed as a family decision. The extended family plays a more important role than the nuclear household: they help with physical labor constructing a home, or help financing it (Allen, 2006; Ferrera, 1996). The stronger interdependency between members of the extended family leads to a situation in which some family members are in terms of their welfare dependent on the property of a family member from another household. The sale of a house (the liquidation of its housing wealth) affects therefore individuals outside the nuclear family. Even if the nuclear family is the legal owner of the home, housing wealth should be portrayed as a family resource. An index that positions all European countries on an axis between familialism and individualism (Allik and Realo, 2004) clearly shows in which countries housing wealth can be expected to be an individual resource (United Kingdom, the Netherlands, Denmark, etc.), or a family resource (Portugal, Bulgaria, Romania).

Degree of liquidity

The degree of liquidity determines to what extent homeowners can use their housing wealth as an economic resource. The degree of liquidity is the result of policies that allow a conversion of housing wealth into financial wealth (institutional factor) and the willingness to do so (cultural factor).

In its purest form, housing wealth is very illiquid, since it is locked up in the bricks of a dwelling. Contrary to the accumulation of financial wealth in the form of savings, bonds and stocks, the decision to buy or sell a house is based on a combination of consumption- and investment motives, while transaction costs are high. Especially in

countries with a social-democratic or liberal welfare state (with a high degree of ownership) there are financial products available that allow homeowners to use their housing wealth as financial wealth: in-situ and ex-situ equity release schemes. In-situ mortgage products allow homeowners to extend their mortgage when the value of the house increases to finance renovations, whereas ex-situ mortgage products function as equity withdrawal schemes to finance consumption, by using capital gains from housing as collateral. In-situ and ex-situ equity release fueled consumption in countries like the Netherlands, where house prices increased rapidly from the 1990s to the financial crisis in 2008 (Klyuev and Mills, 2007; Ong *et al*., 2013). Extensive capital release schemes have existed in Australia, Canada, the US, the UK, Denmark, Finland, Ireland, the Netherlands and Sweden (Chiuri and Jappelli, 2010). A special form of equity release is a 'reversed mortgage', which is an alternative pension arrangement for homeowners. The monthly pension payment is in fact an enlargement of the mortgage loan, whereas the interest payments are added up to the debt, covered by the value of the home. In case financial products allow a transformation of housing wealth into financial wealth, housing wealth inequalities translate into inequalities regarding the housing quality and living standard. Housing equity withdrawal allows households to maintain the high housing quality that is generally accompanied by high housing wealth, whereas it increases the living standard of the household since it provides people with a supplementary income stream. Those with lower levels of housing wealth live in less comfortable dwellings and have smaller housing-related pensions, whereas households with higher levels of housing wealth have higher housing quality and a larger housing-related income flow,

In most countries, people seem to be reluctant to liquefy their housing wealth in later life in order to supplement their pension. People hold on to their housing wealth because of bequest- and precautionary reasons. Kopczuk and Lupton (2007) estimate for the US that 50% of the housing wealth that is transferred to the next generation after the death of the last partner, is accumulated with the intention of transferring it to the children (bequest motive). However,

the intergenerational transmission of housing wealth is affected by housing market circumstances as well (Helderman and Mulder, 2007). Elsinga *et al.* (2008) argues that the acceptance to release housing equity differs between countries, and that this is mainly the result of institutional differences. In the UK, Sweden and the Netherlands, homeowners view their homes more often as wealth, which paves the way for equity release as a pension supplement strategy. In Southern Europe, the home has a more central place in the `family project´ and homeowners feel a stronger attachment to their homes (Elsinga *et al.*, 2008).

Demographic and socio-economic trends

The organization of the life course has changed tremendously since the beginning of the 20th century. Mayer (2004) distinguishes three periods since the year 1900, which all signify a different organization of the life course. Although the timing of the beginning and end of several periods differs between European countries, the strength of this periodization lays in the fact that all European countries went through the same stages. The industrial period (1900-1955) is characterized by a life cycle of poverty. Both men and women with a working class background enter the labor market at a young age after a very short spell of compulsory education. Whereas a young working couple earns enough to sustain itself, it regularly falls back in poverty after child birth. During this period average fertility declined since families were forced to delay childbirth. Old-age is even so associated with poverty due to the existence of very low pensions. The Fordist period (1955-1973) comprised the golden era of the welfare state. It is characterized by a standardization of the life course. Both men and women enjoy compulsory primary and secondary education. Men face life-long employment (typically at the same firm), whereas women remain largely outside the labor force after child birth. The male breadwinner model is backed by the ideology that the male income should be sufficient to sustain the family. The expansion of social insurance and pensions greatly reduced the risk of poverty. The current, post-industrial phase is characterized by a de-standardization of the life course. People prolong their time in the schooling system

and enter the labor market on variegated ages. The female labor force participation has grown, and dual earnings are in many countries necessary to sustain the family. Meanwhile, the risk of unemployment has increased. The family life course has become more instable too, as marriage has become less common and divorce rates went up simultaneously. In other words, life courses have changed when the pre-WWII-generation is compared to the post-WWII-generation since they (1) collectively prolong education and postpone marriage (Mayer, 2004), and (2) show much larger variation on the individual level regarding the experience of all kinds of disruptive life events (Brückner and Mayer, 2005).

Globalization and welfare state restructuring

The rise of the de-standardized life course is generally understood from being a consequence of increasing levels of individualization, globalization and welfare state restructuring. As Mayer and Schoepflin (1989) rightfully note, the state "successively created conditions that single out *the individual* both as the object of state activity and as a distinctive, self-reliant actor" (p. 193, italics in original), which can be considered as a necessary condition to economic and cultural globalization. Bonoli (2005) argues that the de-standardization of the life course has resulted in the emergence of New Social Risks (NSR's), such as divorce, single parenthood, unstable occupational careers, et cetera. These NSR's are either 'old' (class-based) social risks that have been spread to the larger population (like returning spells of unemployment) or risks that are traditionally less class-related like the occurrence of disruptive life events. During the golden age of the welfare state (1945-1975), most Northwestern European countries established social insurance schemes to cover the old social risks. New social risks were covered less extensively and had therefore much larger financial consequences.

The reorientation of most European welfare states since the 1980s is widely debated (Mau, 2015; Pierson, 2001). It is argued that the fragmentation of the classical support base of the welfare state (traditionally the industrial workers) made it more difficult to resist the pressure to retrench the welfare state and shrink budgets for

traditional forms of social security such as unemployment and sickness benefits. Especially for low-skilled workers, globalization has resulted in de-standardized careers, since industrial employment moved to Eastern Europe or Asia. A career with many temporary contracts and gaps of unemployment in between results in lower pensions and higher risks of old-age poverty. Therefore, the groups that face classic social risks and NSR's overlap. The social-democratic left-wing parties that lost power in the 1980s when their classical support base fell apart, and took the opportunity to return to power in a majority of EU states (12 out of 15) in the 1990s by orienting themselves towards buffering the financial consequences of new social risks. The key example is the British Labour party that followed a 'third way' aimed at achieving 'classical socialist goals' by making use of market forces. In many countries, social-democratic parties aligned their interests with employers by reducing classic social security systems with active labor market policies, and the introduction of schemes that financially relief new social risks. Vandecasteele (2011) confirms that life course risks generally add up to classical social risks and result in a situation of cumulative disadvantage. In the period after partnership dissolution, child birth or job loss, those from lower socio-economic strata are far more likely to enter poverty. Whereas post-modernists like Beck (1992) foresee the end of the class society and a replacement of class-based social risks by contingent individual life course risks, Vandecasteele (2011) illustrates the presence and importance of both drivers of inequality.

Variegated outcomes across Europe

Most European countries did not engage in a neo-liberal 'race to the bottom' regarding employment conditions during the shift from the industrial-based welfare state to a post-industrial one with active labor market policies, as was expected by Angelo-Saxon commentators (Pierson, 2001). Different welfare states have dealt differently with globalization and developed their own country-specific solution (Mills *et al.*, 2008). This results in cross-country variations regarding both the occurrence and the consequence of disruptive life events. DiPrete (2002) argues that the level of protection against the consequences of

disruptive life events forms an incentive to experience an event. For example, the occurrence of social mobility is suppressed in Germany by the status-preserving nature of the welfare state, and divorce is discouraged by means of strong tax benefits for married couples. In Sweden, social mobility is encouraged by the universalist nature of the social security and schooling system. Contrary to Germany, social benefits mitigate the risks of partnership dissolution in Sweden. In the UK, a representative of the liberal welfare state regime, social mobility is market-dependent. The fiscal orientation of the state does not actively discourage the occurrence of disruptive life events such as divorce, and neither does it mitigate its risks (DiPrete, 2002).

Welfare states across Europe deal also differently with unemployment-related new social risks that have spread to a wider population in the wake of a post-industrial society. Across the board, there is a trend towards increasing levels of income inequality since the 1980s. Whereas the incomes at the bottom have been stagnant or decresed, the salaries at the top have increased rapidly (Alderson *et al.*, 2005; Alderson and Nielsen, 2002; Harrison and Bluestone, 1990). Barbieri (2009) argues that countries with extensive labor regulations and a low tolerance towards income inequality, such as Sweden, the Netherlands and Denmark are faced with a large insider-outsider problem, since a large share of the population is 'unemployable' on these terms in the post-industrial economic order. Instead, Barbieri argues, these countries allow for an increase of flexible employment and short-term contracts in order to create a 'flexible shell'. This allows companies to adjust (1) their number of employees, (2) their wage level, (3) the number of hours they work, and (4) the content of their jobs. Hence, flexible employment became the norm among low-qualified young people, women and migrants, whereas the high-skilled are still fairly well protected against the risks of the market. This polarizes the life course risks faced by higher and lower-skilled individuals. Countries with a higher tolerance towards income inequality, such as the UK and the US, allow for the emergence of a very low-paid underclass, which has to engage in forms of unstable (and sometimes informal) employment as well.

Consequences for housing wealth accumulation

The above-described demographic- and socio-economic trends that have occurred since WWII have an impact on the distribution of housing wealth. First, the income growth in the decades after WWII, that came accompanied by government support for homeownership, has resulted in an earlier entry into homeownership for many people, especially from the middle and lower-middle class. This has resulted in an upswing of homeownership rates until the outset of the global financial crisis in 2007. As a consequence, the number of people possessing housing wealth has increased. Second, the collapse of the male breadwinner model and the rise of the dual (or one-and-a-half) earning household has increased the purchasing power of these households on the housing market. This is one of the causes of house price inflation in recent decades. When house prices rise, this capitalizes in the hands of those who already owned their home before this price surge started. Furthermore, this increases the inequality between single and dual earning households. Third, since the 1980s, (temporary) spells out of homeownership have become more common due to a higher likelihood of the occurrence of disruptive life events (NSR's). Due to cutbacks in welfare states systems, the financial consequences of partnership dissolution or unemployment are not fully buffered. In the period people reside outside homeownership, the accumulation of housing wealth stalls. Especially in a period of rising house prices, this hampers the accumulation of housing wealth. Finally, the upswing in income inequality since the 1980s has an impact on the borrowing capacity of households, the demand of housing and consequently house prices in different segments of the housing market. The upswing in income inequality can therefore be expected to translate into housing wealth inequality in a direct way.

Socio-spatial trends

The increasing amount of wealth relative to the national income in most Western countries since the 1980s, is mainly the result of capital flowing into the built environment. Real estate grew in importance relative to productive forces (shares in companies etc.) as destination for (global) investments. The emerging relationship

between investments in the built-environment and investments in the productive forces of the economy was initially elaborated upon by Harvey in *The urbanization of capital* (1985). In this work Harvey argues that capital is switched from the primary circuit of capital accumulation (production) to a secondary circuit of capital accumulation (the built environment) when supply of goods and services overshoots its demand. Capital switching cannot prevent an economic crisis to happen, but is able to postpone it. The occurrence of capital switching at the onset of economic crises is widely debated (see e.g. Beauregard, 1994). More interestingly, Piketty's (2014) work provides evidence that capital switching has taken place on a much longer term, and a much larger scale. The composition of wealth holdings in France and the US has changed since the 1980s, when the capital to income ratio started to increase. Housing wealth increased rapidly relative to investments in the productive forces in the economy (business and agricultural investments). This is a sign that capital switching is not just a sign of an approaching crisis, but demarcates a shift to a financialized form of capitalism in which housing wealth plays a pivotal role (Aalbers, 2015). One contested argument is that capital switching has increased since the beginning of a stagnant phase of the long-term economic Kondratiev wave in the economy of Western Europe (Mason, 2016). In this dissertation, I will not focus on the causes behind this increase of investments in the built environment, but rather on how this flow of money has changed the way our cities look and feel, where people live and for which price.

The way in which the built environment is unlocked for capital investments differs from country to country. Below I present a periodization describing the phases that the European countries with the most financialized housing sector (the UK, the Netherlands, Denmark, Sweden) went through.

Increasing homeownership

In the first phase (1973-1990), policies that marketized the provisioning of housing are the main engine that unlocked real estate for capital investments (Rolnik, 2013). Subsidies for housing construction, that were common in most (North) Western European countries

since the end of WWII were reduced or abolished (Donner, 2000). In some countries, the privatization of social housing entailed a more aggressive strategy to open up real-estate for financial markets (for example in the UK, and later in the post-socialist countries of Central and Eastern Europe) (Forrest and Murie, 1988; Yemtsov, 2007). At the same time, a market- and credit-based housing provisioning was facilitated through the easing of regulations on the financial- and mortgage market. First, this made new non-traditional mortgage lenders entering the market. Second, due to financial innovations and the high leverage in the wider economy, interest rates were low and relatively stable (often referred to as the Great Moderation) (Aalbers, 2015). This undermined the position of the state to subsidize housing construction, since these subsidies were in part based on the lower interest rates for states on the international market for credit. In turn, it made mortgages available and affordable for the middle class. For the mortgage lenders, the risks remained limited since the default risks were low due to the fact that the middle class (still) had a relatively high and stable income.

During this first phase, the locational preferences of different social groups started to change in favor of central urban locations close to cultural facilities and meeting places. In the wake of a post-industrial society, a new urban life style emerged, based on social interactions, fueled by the idea that staying tuned in the 'local buzz' is beneficial for innovation (Bathelt *et al.*, 2004; Ley, 1997). Lees et al. (2013) describe this as one of the causes of the first wave of gentrification. In this wave, individuals with low economic-, but high cultural capital (artists, bohemians, LGBT community) move into decayed central urban neighborhoods with a predominantly working class population and renovate their properties. The second wave of gentrification is no longer led by individuals, but by investors, looking to maximize their profit in neighborhoods with a 'rent gap' (Smith, 1979). A rent gap occurs in under-invested but centrally located neighborhoods in the proximity of neighborhoods with high property prices. The first waves of gentrification are widely and heavily criticized for displacing working class families, disconnecting them from their local support network (Marcuse, 1985), but are also described as an

opportunity to create more socially mixed neighborhoods, which would eventually benefit the lower classes by providing a safer and cleaner environment with more opportunities for education and labor market participation (Veldboer and Bergstra, 2016).

Increasing house prices

In the second phase (1990-2007) policies contributing to rising house prices are the engine that unlocked real estate for capital investments. Fernandez and Aalbers (2016) describe how the real, productive, economy is, from the end of the 1980s onwards no longer able to meet the demand for High Quality Collaterals (HQC) from the financial sector, fueled by the increased corporate savings and pension savings. Although mortgage loans are generally considered as HQC's, they could not be traded due to strict financial regulations. Governments had however a large incentive to expand mortgage markets in order to include outsiders (especially young people and lower income groups) into homeownership. This would give groups that were previously expensive for the welfare state access to the allegedly (eternal) financial gains of owner-occupation. The liberalization of housing finance allowed financial institutions to take more risks and externalize these risks to third parties, which led to higher loan-to-value rates for prospective homebuyers, and to an increase of interest-only mortgages (especially in the Netherlands and Sweden). The liberalization of housing finance "temporarily allowed political elites to overcome capitalist contradictions: boosting corporate profits by lowering the wage share while increasing private consumption and achieving fiscal surpluses" (Fernandez and Aalbers 2016, p. 14). The liberalization of housing finance is one of the causes of a surge in house prices in most European countries in the period between 1990 and 2007 (OECD, 2014). Since the extension of the housing stock has been limited, the increased borrowing capacity resulted in the fact that people started bidding more for the same dwellings. Meanwhile, the rising prices reduced the risk of expanding mortgage finance to lower socio-economic groups that would under different circumstances not have been able to afford homeownership. Hay (2009) argues that many states are locked into a situation in which they can only support measures that further drive up house prices, in order to compensate

for the loss of real income. Rolnik (2013) concludes: "As long as housing prices continued to rise, the expectation that price increases would be greater than the discrepancy between housing costs and incomes kept everyone happy" (p. 1062).

During this second phase, state- and market-led gentrification paved the way for further capital investments in the built environment. Whereas gentrification in the 1970s and 1980s was mainly people-led or investor-led, in the 1990s the government stepped in more often to facilitate investments in neighborhoods with rent gaps that were not recognized by the market (for example due to large shares of public/social housing). Public-private growth coalitions reduce the risks for private parties and enlarge the public budget that is available for regeneration (Lees *et al.*, 2013). These state-led regeneration projects are generally legitimized by two arguments. First, the demolition of low-income housing creates a more safe and attractive neighborhood and contributes to socially mixed neighborhoods. The displacement of a part of the former population is taken for granted. Second, the establishment of a vibrant consumption milieu in central neighborhoods is expected to attract high-end knowledge workers. Inspired by Florida's (2005) influential work, cities compete with each other internationally to attract a 'creative class', in the hope employers will follow. In the latter case, the displacement of low-income residents is not just a necessary outcome, but a means to reach economic objectives (Peck and Tickell, 2002). The changing role of the local government has led to what Hall and Hubbard (1996) call 'entrepreneurial cities': cities where the local administration have its interests lined up with business.

The increasing speed of gentrification processes is mirrored by the downgrading of neighborhoods elsewhere in the same urban region. Between 1990 and 2007, the sorting of individuals across urban space has become more market-based. Tammaru *et al.* (2015) show that in nearly all European capitals, socio-economic segregation has increased spectacularly already since the 1980s. They point out that this is the result of (1) an ever more polarized income distribution and (2) housing market processes that sort people in a different way over the urban space. These housing market processes entail the privatization of social housing, state-led gentrification and public investments in

city marketing and 'pockets of richness' (Baeten, 2012; Hackworth and Smith, 2001), fueled by the enlarged purchasing power of the higher- and upper-middle class after the deregulation of housing finance (Damen *et al.,* 2016).

Increasing inequality

In the third and current phase (2007-present), governments focus on attracting investments in the built environment, although their position is weakened after the global financial crisis. The post-crisis environment generates a different socio-spatial dynamic than previously. The crisis of 2007 has shown that the influx of capital in the built-environment, fueled by overall house price increases, reached its boundaries. However, several scholars argue that a new wave of capital flowing into real estate is on its way. Especially elitist estates and neighborhoods in predominantly capital cities form a new safe heaven for capital (Fernandez *et al*., 2016). Whereas previously physical restructuring was key for capital to enter certain areas, now social restructuring has taken over this role. Centrally located neighborhoods with a high-educated, well-earning population are a safer and more profitable destination for capital. The redistribution of people across urban space therefore becomes a necessary condition for economic growth. This can be conceptualized as an urban form of revanchism, embedded in the broader tendency of revanchism, in which the economic elite wins (back) control over the state in order to increase the profitability of their investments (Harvey, 2007; Fainstein, 2010; Sharkey, 2012).

Whereas urban revanchism is generally described as a situation in which the white middle class 'takes back' certain neighborhoods in the city (Uitermark and Duyvendak, 2008), Slater (2016) describes it as a financial logic taking over the city by displacing individuals that are less profitable. The eviction of tenants with a relatively low value creates fictitious capital (a claim on expected future gains) since the rent gap increases for other units when population with a higher socio-economic status moves into the evicted dwellings. In Sweden, the role of the state in the creation of socio-spatial inequality that is necessary for capital to flow into the built environment is even more

active. Baeten and Listerborn (2015) conclude that the removal of an unwanted population (those on benefits, migrants and those with a low socio-economic status) from a location with a high economic potential has been one of the driving forces behind the regeneration of central neighborhoods. They speak of a shift from gentle to brutal gentrification. Upgrading by displacement is more or less a zero-sum game: those who move out reduce the value of the neighborhood they move into, whereas they increase the value of the neighborhood they move out of. The increased levels of socio-economic segregation since the 1980s in most European cities leave us with a distributional question: who profits, and who loses?

Consequences for housing wealth accumulation

Socio-spatial trends that occurred since the 1980s have impacted upon the distribution of housing wealth in at least three ways. First, the increasing levels of segregation in Europe's larger cities reinforced inequalities between those who bought into upgrading and downgrading neighborhoods. Empirical evidence shows that house prices have risen more in neighborhoods with a higher socio-economic status, which increases the opportunity for housing wealth accumulation in these locales. Moreover, in most European countries, the larger cities experienced larger house price surges than the smaller ones, which has an impact on the distribution of housing wealth – especially in countries where the higher classes find their way into the larger metropolitan regions (Bellini *et al.*, 2013). Second, the possibilities for social mobility through house price gains became larger since the 1980s. The widespread phenomenon of gentrification (people-led, investor-led or state-led) has created opportunities for real estate owners to profit from the house price boom in the neighborhoods with the most rapid price surge (Lees et al., 2013). It is however up to debate whether the 'original population' is able to reap the benefits from this spatial development. Third, the financialization of housing, comprising generous mortgage lending has resulted in more volatile house price cycles and an overall upswing in house prices (OECD, 2014). This increases the importance of the moment of home-buying on the accumulation of housing wealth. Sparse evidence

suggests that the timing of the inclusion in mortgage finance differs between social groups. Whereas higher-income groups have access to mortgage finance throughout the house price cycle, the lower class is more likely to obtain a mortgage when the housing market is overheated and risks are high (Shlay, 2006). However, the surge in house prices that many European countries experienced since the beginning of the 1990s, has a large impact on the possibilities for housing wealth accumulation for different birth cohorts. Those who enter the market for owned homes at a later moment in time, have smaller opportunities to accumulate large capital gains. Furthermore, the experience of disruptive life events that often result in postponing moves into owner-occupation might have stronger negative effects in times of rapid house price inflation.

Research questions

The above-described demographic, socio-economic and socio-spatial trends all have an impact on the accumulation of housing wealth by different social groups. Interestingly, the accumulation of housing wealth is increasingly seen as a 'game changer' in the political economy: a mechanism that sets in motion further changes in the orientation of the welfare state (Ansell, 2014; van Gent, 2010). This dissertation aims to explain housing wealth inequality between social classes and birth cohorts on the basis of (interactions between) individual life courses and the institutional context, following an internationally-comparative perspective.

The complexity of this doctoral thesis lays in the fact that several mechanisms that shape the distribution of housing wealth might counteract each other. Moreover, the importance of these mechanisms is affected by the above-outlined socio-economic and socio-spatial trends. Initially, housing wealth inequality might originate from differences in the purchasing power on the housing market between social classes: the working class generally buys cheaper properties than the managerial elite. However, the variation within social classes can be expected to be large due to period effects and location effects. For example, a working class household that bought the home at the beginning of an upward house price cycle might accumulate more

housing wealth than an upper class household that bought at the beginning of a downturn. Second, a working class household might accumulate more housing wealth than an upper class household if it owns a property in a gentrification neighborhood that experiences a house price surge.

In this dissertation, I take important life course events and cohort effects into account, alongside social class as a determinant of housing wealth inequality. More importantly, the focus of this doctoral thesis is on the effect of institutional arrangements on the accumulation in housing wealth. As a result of different approaches to housing policy, social policy and economic policy, the socio-economic and socio-spatial trends that have been discussed, differ between countries. The effect of institutional arrangements on the accumulation of housing wealth will be elaborated upon on the basis of these cross-country differences.

The most general question this dissertation seeks to answer is:

What does the housing wealth distribution look like in European countries with different housing regimes, which mechanisms shape this distribution, and how can cross-country differences be explained from (an interaction between) life course factors and (historical) institutional factors?

In this dissertation, inequality is explained by (an interaction of) micro and macro factors. Disruptive life course events and someone's social class position are micro-level explanations, whereas housing policies or welfare state policies are macro-level indicators. While someone's social class position is a micro-level indicator, the social class structure should be regarded as a macro-level indicator since it is the outcome of the democratic class struggle in a country and since it affects the price-setting on the housing market. A similar argument can be made for residential mobility, which can be considered a micro-level variable, whereas the level of segregation in an urban region (the result of thousands of residential moves) is a macro-level indictor since it is the outcome of local and national urban strategies. As a macro characteristic, it determines the profitability of investments in housing at different locations.

Four sub-questions approach the main question from four different angles. The first sub-question takes into account social class differences and cohort differences in terms of homeownership levels (one dimension of housing wealth) and housing wealth (the outcome of the housing wealth accumulation process).

1. *How is housing wealth distributed among social classes and birth cohorts, and can differences between countries be explained by housing policies?*

The second sub-question takes accumulated housing wealth (the sum of all dimensions) as outcome variable. Contrary to sub-question 1, housing wealth inequality is explained on the basis of marital trajectories. Partnership dissolution can be regarded as the most common life course event with large economic consequences, especially for women. By distinguishing two divorce cohorts, this sub-question sheds light on the effect of changing policies over time.

2. *To what extent do negative life course events, like divorce, impact upon the accumulation of housing wealth in different institutional settings? And how has this effect evolved over time?*

The third sub-question approaches housing wealth from a dynamic point of view, and takes into account its accumulation process. The realization of capital gains is the output variable of this longitudinal study. It explains inequality in terms of capital gains on the basis of social class background and events in the housing pathway, such as moves between different housing tenures and moves between neighborhoods with a different social status (development).

3. *What is the social background and housing career of those who gain and those who gain and lose on the housing market in a period of increasing socio-economic polarization?*

Finally, the fourth sub-question broadens the scope from housing wealth to net worth. This is the sum of financial wealth holdings

and housing wealth holdings. On the basis of sub-question 1 to 3, it is not possible to conclude how housing wealth inequality among homeowners with a different social class background impacts on inequality regarding net worth since housing wealth holdings might be counterbalanced with financial wealth holdings. Sub-question 4 investigates in which institutional contexts the gap between tenants and homeowners regarding net worth is larger. It researches to what extent differences regarding the housing system and the welfare state can explain these 'tenure wealth gaps'.

4. *To what extent do housing wealth and financial wealth function as communicating vessels in countries with different institutional characteristics?*

Research strategy

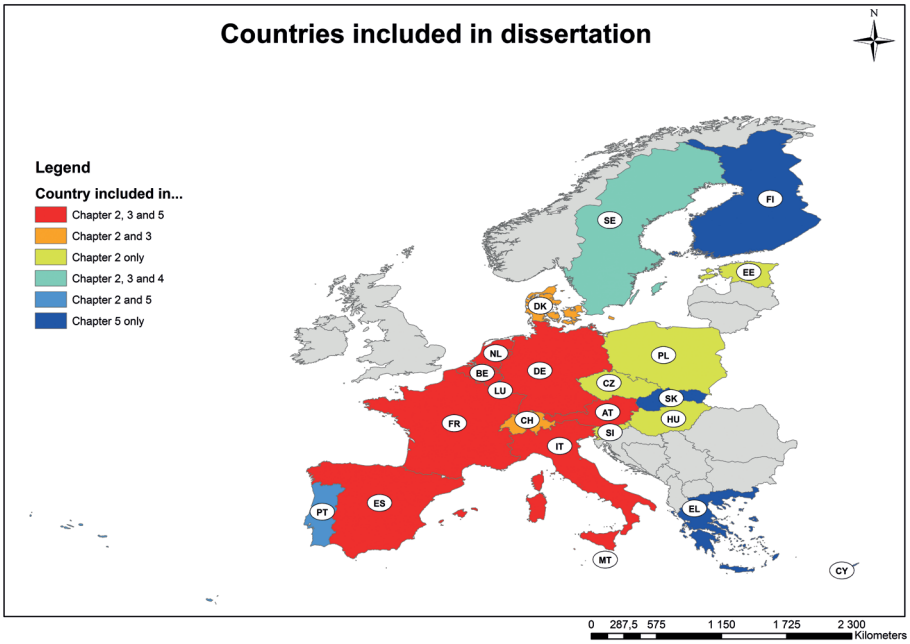
Throughout this dissertation, a quantitative approach is used to study the mechanisms shaping the distribution of housing wealth in different institutional contexts. Ideally, all European countries would be taken into account. However, the number of countries that is studied in the separate chapters is limited due to the incomplete coverage of internationally-comparative data sources on housing and wealth. Three studies are based on survey data collected by various European institutions (the Survey of Health and Retirement in Europe [SHARE] and the Household Finance and Consumption Survey [HFCS] of the European Central Bank [ECB]), whereas one study is based on Swedish tax register data on persons and properties. In different chapters the accumulation of housing wealth over the life course is approached by making cohort comparisons, studying disruptive life events and investigating housing pathways of individuals over time. Together, the four empirical chapters shed light on the more accurate definition of housing wealth proposed in the introduction by approaching housing wealth from different angles (moves into homeownership, accumulated housing wealth in old-age, capital gains). In three out of four empirical chapters, an international comparison is conducted to study the effect of institutional arrangements on the accumulation of housing wealth. Whereas housing wealth accumulation regimes

are formulated in the first empirical chapter to provide an intuitive feel of differences between groups of countries with similar policy preferences, regression analyses with country-fixed effects are used to single out the effect of several institutional characteristics in two other studies (see 'Outline' for an overview of the empirical chapters in this dissertation).

In this dissertation, three data sources are used. The first two empirical chapters are based on the SHARE. This is an internationally-harmonized panel survey, conducted in maximum 21 countries, containing individual information on socio-economic status, housing situation, health, life histories and family networks. Figure 1.2 shows which countries are included in which chapter. Between 2004 and 2013, five waves have been carried out (not all countries are included in all waves). The sample of the SHARE exists of individuals aged 50 or older (in total more than 123.000). This dissertation mainly makes use of information from the third retrospective wave (2009), and the fourth wave (2011), enriched with data from the previous waves. In Chapter 2, 16 European countries that represent various welfare regimes and housing regimes are included: Austria, Germany, Sweden, the Netherlands, Spain, Italy, France, Denmark, Switzerland, Belgium, Czech Republic, Poland, Hungary, Portugal, Slovenia and Estonia. In Chapter 3, less countries are taken into account since retrospective information on life histories is not available for all of the countries that have participated in the SHARE. Chapter 3 includes 10 countries only: Austria, Germany, Sweden, the Netherlands, Spain, Italy, France, Denmark, Switzerland and Belgium. The SHARE is one of the few data sources containing international-comparative information on housing wealth holdings. Furthermore, it is unique since it covers the life courses of elderly persons retrospectively and is representative of a wide range of welfare regimes and housing regimes. Chapter 4 is based on longitudinal Swedish register data (GeoSweden), collected at the individual level and the property level. It is possible to trace back the lives of nine million Swedes from 1995 until the present. It contains information on the occupational status, educational attainment and income of all residents in every year. On the property level, it contains information on physical characteristics

and an estimation of the property value. The sample used in Chapter 4 consists of 70.000 inhabitants of Sweden's three metropolitan areas and its ten next-largest cities, born between 1970 and 1975. A large advantage of the use of register data is that the information is based on evaluations of the tax agency instead of self-evaluation, and the absence of missing information. Chapter 5 uses the HFCS data from the ECB. The survey is conducted in 16 Eurozone countries in 2010/11, of which only 15 are included in the study: Belgium, Germany, Greece, Spain, France, Italy, Cyprus, Luxemburg, Malta, the Netherlands, Austria, Portugal, Slovakia and Finland. Item-non-response is dealt with by the inclusion of multiple imputations. These data give unique insight in all financial aspects of life in the Eurozone countries, from housing wealth to financial wealth, income and various forms of consumption. Furthermore, it contains a younger population than the SHARE. In the fourth empirical chapter, the sample is restricted to non-retired people between the age of 30 and 67.

Figure 1.2. Map of countries included in the empirical chapters.



Outline

This introduction is followed by four empirical chapters that are the backbone of this PhD dissertation. The four chapters presenting the empirical results can be read as independent contributions to the scholarly debate. Therefore, the theory sections of these chapters show a certain degree of overlap. They differ, however, in terms of their framing since they approach housing wealth inequality from a different angle. In this way, they make a different link to the general conceptualization of housing wealth, its dimensions and drivers. The empirical backbone of this dissertation is the result of thorough cooperation with co-authors (Dr. Philipp Lersch and Dr. Lina Hedman) and my PhD supervisor, Dr. Caroline Dewilde. Furthermore, it has benefitted tremendously from discussions with Stéfanie André, Christa Hubers, Bo Bengtsson, Matz Dahlberg, Jorn Koelemaij and Dominic Teodorescu.

Chapter 2 presents an overview of tenure inequality and housing wealth inequality between different occupational classes in two birth cohorts (born 1930-1949 and 1950-1962). This chapter sets the scene for the entire dissertation by linking tenure inequality to housing wealth inequality. Within the field of housing studies, much research has been conducted to evaluate the impact of housing policies and spatial policies on homeownership rates. This chapter demonstrates that the expansion of homeownership has differential outcomes in terms of housing wealth. More specifically, it shows under which circumstances lower or higher homeownership rates coexist with smaller or larger levels of housing wealth inequality. Moreover, this chapter presents a new typology of housing regimes in Europe, based on the impact of the institutional arrangements on the distribution of housing wealth. The regimes presented here, are rooted in the historical political-economy configurations in these countries. For example, two clusters of post-communist countries are not merged with other countries, to investigate the impact of historic policies on the eldest of the two cohorts studied (born 1930-1949).

In the third chapter, the financial consequences of one of the most common and critical life course events is studied: the effect of divorce on the accumulation of housing wealth. This chapter places the first

chapter in perspective by providing an addition to the previously presented perspective on inequality between occupational classes and birth cohorts. Whereas the regime approach used in Chapter 2 gives an indication of a tangle of policies (conceptualized as a consistent regime), the analytical strategy used in Chapter 3 is able to tease out the effect of individual welfare state arrangements and housing policies on the effect of partnership dissolution, and re-partnering afterwards. Both Chapter 2 and Chapter 3 deal with accumulated housing wealth among a population that is aged 50 and older, while focusing on a different driver of housing wealth inequality.

In Chapter 4 the accumulation *process* of housing wealth plays a central role. This Chapter focuses therefore on a younger population than the previous two, namely those who are born between 1970 and 1975. It tracks the residential mobility of people living in Sweden's largest 13 cities, while taking into account individual characteristics as well as characteristics of the properties in which they have lived. The dependent variable in Chapter 4 is therefore, contrary to the previous chapters, capital gains on the housing market. Whereas in Chapter 2 and 3 no explicit distinction is made between the different dimensions of housing wealth (purchase price, capital gains, size of the mortgage, mortgage amortization), in Chapter 4 capital gains are presented as a major individual-level explanation of housing wealth inequality between those with a lower and higher social status, and between those with an intact marriage and those who experienced a divorce. In Chapter 4, instead of a cross-country comparison, the housing market dynamics that determine capital gains and losses are taken into account as an important contextual factor. In the case of Sweden, the upswing in segregation levels and the speeding of gentrification processes is (partly) policy-induced, and can therefore be connected to the cross-country comparisons carried out in Chapters 2 and 3.

Chapter 5 places the three other empirical chapters in perspective by providing information on financial wealth holdings alongside housing wealth holdings. In order to draw conclusions on the impact of housing wealth inequality on the magnitude of overall wealth inequality, or on the socioeconomic stratification in the society, it is necessary to take into account financial wealth, since both forms of

wealth might counterbalance each other. In Chapter 5, information on the size of a 'tenure wealth gap' is presented. The tenure wealth gap is the difference in net worth (total wealth holdings) between tenants and homeowners with similar social characteristics, in one country. Whereas tenants accumulate financial wealth only, homeowners accumulate both financial wealth and housing wealth. When homeownership receives a preferential treatment through taxation and government policies, the tenure wealth gap can be expected to be larger. Chapter 5 outlines how the orientations of the housing system and the welfare state are associated with differences in the size of the tenure wealth gap.

The conclusion makes up the balance sheet of the empirical results of the previous four chapters. It provides an overview of housing wealth inequality in European countries between social classes and birth cohorts and summarizes the role of life course factors (disruptive life events, residential mobility) and institutional factors (housing policies, welfare state arrangements) in the emergence of housing wealth inequality. Moreover, this chapter deals with the political implications of the nature of housing wealth inequality in Europe. Which trends can be expected? And what are feasible ways for governments to deal with increasing levels of housing wealth? Finally, I will prelude on further research that needs be done in this direction.

Table 1.1. Schematic view on the relations between chapters in this dissertation.

Chapter	Countries	Dependent variable	Independent variables	Measurement of institutions	Perspective	Sample	Data	Method
2	*AU, BE, CZ, DK, EE, FR, DE, HU, IT, PL, PO, ES, SL, SE, CH, NL*	• *Tenure* • *Housing wealth*	• *Occupational class* • *Birth cohort*	• *Housing wealth accumulation regimes*	*Micro-macro*	*1930-1962*	*SHARE Wave 4*	*Descriptive*
3	*AU, BE, DK, FR, DE, IT, PL, ES, SE, NL*	• *Housing wealth*	• *Partnership dissolution* • *Birth cohort* • *Educational level*	• *Homeownership rate,* • *Turnover rate,* • *Housing finance liberalization,* • *Divorce laws,* • *Female employment rate*	*Micro-macro*	*1930-1962*	*SHARE Wave 3/4*	*Country-fixed effects regression*
4	*SE*	• *Capital gains*	• *Housing pathways*		*Micro-macro*	*1970-1975*	*Geo-Sweden*	*Sequence analysis*
5	*BE, DE, GR, ES, FR, IT, CY, LU, NL, AU, PT, SL, FI*	• *Housing wealth* • *Financial wealth*	• *Tenure* • *Income* • *Age*	• *Homeownership rate,* • *Tax treatment of homeownership,* • *Housing finance liberalization,* • *Social housing,* • *Pension generosity, Unemployment benefit generosity*	*Micro-macro*	*1944-1981 Middle class*	*ECB-HFCS*	*Country-fixed effects regression*

CHAPTER 2

The Distribution of Housing Wealth across occupational classes and age cohorts in 16 European Countries: Accounting for Institutional Differences

Abstract

Housing wealth is the largest source of household wealth, but we know little about the distribution of housing wealth and how institutions have shaped this distribution. Subsidies for homeownership, privatization of social housing and mortgage finance liberalization are likely to have influenced the distribution of housing wealth in recent decades. To examine their impact, we describe housing wealth inequalities across occupational classes for two birth cohorts aged fifty and older. The analysis is conducted across 16 European countries with divergent welfare states and housing systems using the fourth wave of the Survey of Health, Aging and Retirement in Europe (SHARE; 2011/2012). Our results indicate that the expansion of homeownership in a market-based housing system is associated with a more unequal distribution of housing wealth across occupational classes, as an increasing number of 'marginal' owners is drawn into precarious homeownership. Such a pattern is not found in housing wealth accumulation regimes with a less market-based provision of housing. When the state or the family drive homeownership expansion, a de-coupling of labor market income and housing consumption results in a more equal distribution of housing wealth.

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Introduction

Between the end of World War II (WWII) and the early 1980s, European countries could be classified in three homeownership promotion regimes: 1) societies with low homeownership rates and high state support for rental housing; 2) countries with relatively large (social) rental sectors and large more de-commodified homeownership sectors due to generous state subsidies; and 3) homeownership societies with almost universal homeownership due to self-provisioning by the family (Barlow and Duncan, 1994). Before the 1980s, subsidies for homeownership or tolerance towards semi-legal self-provisioning drove up homeownership rates, whereas since the 1980s the sale of social housing (privatization) and the loosening of borrowing constraints (housing finance liberalization), have resulted in an upswing of homeownership rates in most countries (e.g. Angelini *et al.*, 2013). However, countries that followed different policy paths have experienced different house price trajectories. Due to the differential use of the above-mentioned strategies across European housing systems, institutional differences across the continent has increased. The outcomes of changes in the political economy of housing on the wider socio-economic stratification, are under-researched (Dewilde, 2011). Therefore, we address the following research question: How is housing wealth distributed across occupational classes across European countries with a different political economy of housing, and how did this distribution change between two birth cohorts of homeowners that were differently affected by privatisation and liberalisation? In this way, we are able to grasp how housing wealth inequality impacts upon other forms of inequality in society.

In this chapter, we evaluate housing wealth inequality for homeowners across occupational classes within and between two birth cohorts in 16 European countries, clustered in seven housing wealth accumulation regimes. Housing wealth is defined as the value of one's owned home, minus mortgage debts. Housing wealth accumulation regimes are based on the 1960-1980 state-promotion of homeownership (rental societies, homeownership expansion societies, and homeownership societies), and the 1980-2010 changes

in the political economy of housing (privatization and liberalization). Within- cohort inequality is conceptualized as differences in housing wealth across four occupational classes (low/ middle / high / self-employed). A comparison between two cohorts (1930-1949 / 1950-1962) allows for an exploration of the consequences of the above-mentioned policy changes for the distribution of housing wealth. The older cohort has generally bought their first home when the 1960-1980 housing wealth accumulation regimes were dominant, whereas the younger cohort has almost certainly bought the first home in a period where privatization and housing finance liberalization started to take off. Housing wealth of occupational groups across both cohorts was furthermore differentially affected by house price developments. The arguments we develop in this chapter are supported by means of descriptive analyses on homeownership rates, housing wealth holdings, and residential debts.

This research advances previous studies in four ways. First, it advances studies that investigated unequal access to homeownership and housing outcomes (Dewilde and De Decker, 2016; Dewilde and Lancee, 2013), by looking at housing wealth inequalities instead of tenure inequalities. In the past, it might have been sufficient to look at housing tenure (owning or renting) as an indicator of socioeconomic status. However, after the proliferation and diversification of homeownership, housing wealth is a more adequate measure. After all, the expansion of homeownership to the lower and middle classes reduces tenure inequality, but does not necessarily reduce housing wealth inequality between social classes. Differentiation among homeowners in terms of housing wealth might be the result of differently sized (1) initial investments in housing, (2) mortgage debts, and (3) capital gains and losses. Second, it generates a new international-comparative perspective on the relation between social class and housing (Kurz, 2004). Individuals in the same social class generally share a comparable housing situation due to their comparable position in the labor market and consequently similar purchasing power on the housing market. However, since the 1970s it has been argued that the housing market might be a structural driver of social class inequalities, since house price increases favor

'housing market insiders' (Saunders, 1984). However, the expansion of (low-quality) homeownership to low-income groups resulted in a differentiation in terms of housing wealth gains and losses, and consequently the line between insiders and outsiders has become blurred (McKee *et al.*, 2010). Third, it advances studies on wealth inequalities (Engelhardt and Kumar, 2011; Semyonov and Lewin-Epstein, 2013), by taking housing wealth into account as a separate dimension of wealth inequality. When housing wealth is analyzed alongside other forms of wealth, it often remains unclear how it differs from other types of wealth in terms of its role and (institutional) drivers. Finally, this chapter advances country studies on housing wealth inequality (e.g. Appleyard and Rowlingson, 2010; Thomas and Dorling, 2004) by providing a comparative analysis of 16 European countries. Without such an international-comparative perspective, it is hardly possible to study the impact of different sets of institutional characteristics on the distribution of housing wealth.

Housing wealth accumulation regimes

For this study, we identify seven housing wealth accumulation regimes, based on the political economy of housing in the period 1960-1980 and 1980-2010. Table 1 gives an indication of the expansion of homeownership during both time periods, and of current practices regarding housing finance, since the latter affect the profitability of housing investments made in the past. Housing wealth accumulation regimes determine which social groups have access to homeownership, at which age, for which price, and to which extent they experience capital gains and losses. Whereas the first three dimensions refer to the period of purchase, capital gains and losses are affected by changes in the housing regime up until the present. We proceed with a discussion of housing wealth accumulation regimes, with the promotion of homeownership until 1980 as point of departure.

Rental societies

Until the 1980s, rental housing was the dominant tenure in some European countries in Western Europe (Germany, Switzerland, and Austria) and communist Central Europe (Czech Republic,

Poland and Estonia). Table 2.1 shows that homeownership rates in the German-speaking rental societies were very low in 1960 (29% and 38%). Homeownership rates in the communist rental societies ranged between 26% and 53% in 1980 (no earlier data available). Whereas regulated private rental housing was dominant in the German-speaking countries, social rental (state/public) housing was common in the communist rental societies. The political economy of housing favored in both groups of countries rental housing over homeownership. First of all, the entry into homeownership was difficult due to a restricted housing finance system. Loan-to-value and loan-to-income ratios were fairly low, and relatively large down-payments needed (Donner, 2006; Matznetter, 2002). Second, the large, non-stigmatized rental housing segment constituted a good and affordable alternative for homeownership (Bourassa and Hoesli, 2010). In rental societies, homeownership is especially represented in rural areas. German evidence shows that demand subsidies stimulated self-construction on the countryside after WWII, which resulted in relatively high homeownership rates among working-class families in that period (Kurz, 2004).

The German-speaking rental societies constitute the *regulated rental regime* and saw little change in their political economy of housing since the 1980s. Compared to other countries, their housing finance system remained conservative. Loan-to-value ratios and loan-to-income ratios remained low and large down-payments were needed (Table 2.1). The availability of *Bausparen*-schemes, i.e. long-term saving schemes coupled to attractive loans, underscores the conservative orientation of the housing finance system (Matznetter, 2002). Homeownership rates grew to around 50% in 2010, but homeownership is far more socially selective than in other countries. Furthermore, in the last three decades, house prices have been more stable than elsewhere in Europe (OECD, 2014). When we consider homeowners only, we therefore expect housing wealth inequality between occupational classes to be smaller than in other housing wealth accumulation regimes. Hence, the small group of lower- and middle-class households that is able to enter homeownership is likely to rely on other resources than the household income (e.g.

family transfers, savings), since labor market earnings are often not sufficient to obtain homeownership. Furthermore, we expect lower average housing wealth holdings among the lower class in the 1950-1962 cohort than in the 1930-1949 cohort, since homeownership became more selective due to a decline of self-construction (Kurz, 2004).

The Central European rental societies constitute the *privatized rental regime*. They experienced a massive shift in the political economy of housing since the fall of communism. Homeownership became almost universal in the 1990s, when a majority of the tenants acquired homeownership via 'give-away' privatization schemes (Stephens *et al.*, 2015). In 2010, these former rental societies have among the highest homeownership rates of Europe, ranging from 79% in the Czech Republic to 86% in Estonia (Table 2.1). The privatization of former social housing turns the socio-spatial inequalities that already existed under communism into material inequalities (see Stephens *et al.* 2015 for a discussion of state legacy welfare). Andrusz *et al.* (2008) argue that the allocation of housing under communism was in the first place based on loyalty to the ruling party, instead of on labor market income. Such an allocation mechanism weakens the link between occupational class and housing consumption. Since housing functioned as shock-absorber for the economic turmoil after the collapse of the Soviet-Union (Stephens *et al.* 2015) and most households were able to buy their former rental home, we expect housing wealth inequalities among the oldest cohort not to be based on their occupational class position. We expect housing wealth inequalities between occupational classes to be larger among the 1950-1962 cohort, since a larger share of respondents entered the housing market after the fall of communism. Under the new market circumstances a stronger link between labor market income and housing consumption can be expected.

Homeownership expansion societies

A group of North-Western European countries with low homeownership rates at the end of WWII (Denmark, Sweden, The Netherlands, Belgium and France) has encouraged people to own their home as part of their post-war reconstruction. At the same time,

most of these countries have invested in the construction of social rental housing as part of an inclusive welfare state. In the Nordic countries, homeownership was promoted in a non-financialized way (object subsidies and preferential tax treatments) in order to grant different social classes access to homeownership (Donner, 2000). In the Netherlands and France, the growth of homeownership has been restricted to the middle and higher classes. For the lower-income groups, these countries channeled funds into the construction of affordable social housing (Priemus and Boelhouwer, 1999). In both Belgium and France, lower-income homeownership is stimulated through targeted schemes in the form of demand subsidies or tax deductions (Donner, 2000). The subsidy-driven expansion of homeownership in this group of countries has resulted in an upswing of homeownership rates between 1960 and 1980 (Table 2.1).

Belgium and France constitute the *regulated expansion regime*, in which the political economy of housing only slightly changed since the 1980s. Annuity mortgages remained a common way to finance homeownership, but are not widely available, which makes them selective towards higher-income groups. Moreover, family-help, savings and inheritances are an important driver of homeownership in the countries in this regime (Mulder and Billari, 2010). However, due to the fairly regulated housing finance system (moderate down-payments and amortization requirements), the lower class often needs state support to enter homeownership. A further increase of homeownership rates between 1980 and 2010 (Table 2.1) is likely to be the result of slightly eased mortgage requirements and a continuation of targeted homeownership schemes, like the French *pret-à-taux-zero* (Donner, 2000). We expect housing wealth inequality between occupational classes to be larger in this regime than in most others since labor market income is decisive for housing consumption in this market-based system of housing provisioning. Due to small policy changes over time, we expect comparable outcomes for the younger and the older birth cohort.

Denmark, Sweden and the Netherlands are part of the *liberal expansion regime*. All three countries abandoned their system of object subsidies in the 1980's and embraced liberal housing finance. In this

system, banks were allowed to pass on risks to third parties in the form of Residential Mortgage-Backed Securities (RMBS). This translated into easier access to capital. Loan maturities of 40 years, and loan-to-value ratios of over 100%, became common at the beginning of the 21st century. In the Netherlands, interest-only mortgages even became the most popular form of financing housing (Scanlon *et al.*, 2008). As a consequence, countries in this regime have the highest mortgage debt-to-GDP ratios in Europe (Schwartz and Seabrooke, 2008). Furthermore, there is evidence that the liberalization of housing finance led to more volatile and inflated house prices at central urban locations (OECD, 2014). However, only when occupational classes live spatially segregated, this might affect housing wealth inequalities across occupational classes (Hamnett, 1999). We expect that the liberalization of housing finance leads to an expansion of homeownership among the lower and middle class because it lowers monthly fixed costs by reducing the necessity to amortize the loan. Advanced mortgage products (e.g. interest-only mortgages) however hamper housing wealth accumulation, whereas upward price mobility benefits housing wealth holdings of those who bought previously. A larger take-up of loans by the lower and middle class thus increases housing wealth inequality between occupational classes. Since the 1950-1962 cohort has a larger likelihood of having bought the first home after the start of the liberalization of housing finance in the 1980s, we expect housing wealth inequality between occupational classes to be larger among the younger cohort (1950-1962), compared to the older cohort (1930-1949).

Homeownership societies

Many Southern- and Central-European countries have a long tradition of homeownership, whether they have a capitalist (Italy, Spain and Portugal) or a communist history (Hungary and Slovenia). In Southern Europe, state involvement in the sphere of housing has always been limited (Allen, 2006). In the communist countries in Southern Europe, social housing has been less prominent than in the Northern-European communist states, but more pronounced than in the Mediterranean countries with a market economy (Tsenkova, 2008).

In the Mediterranean countries with a market economy, most social housing had already been privatized in the decades following WWII (Donner, 2000). Due to the lack of spatial planning, a very conservative housing finance system and the tolerance of illegal self-construction, the family became the most important actor in the provisioning of housing (Allen, 2006).

The family-oriented model of housing provision remained intact in Italy and Portugal. In the *family ownership regime*, homeownership rates grew from around 50% in 1980 to 75% in 2010 (Table 2.1). Meanwhile, the housing finance system remained under-developed (low loan-to-value rates and variable loan maturities). Recent evidence shows that the entry into homeownership became more problematic for the younger generation because illegal construction became more difficult (Allen, 2006) and residential loans did not fill this gap (Mulder and Billari, 2010). Since only the poor are housed in rental housing and homeownership is the housing tenure for 'the masses', we expect small tenure inequalities between occupational classes. We envisage two possible, but opposed, consequences of these small tenure inequalities for the distribution of housing wealth. First, we expect larger housing wealth inequalities among homeowners when homeownership is universal. When rental housing is largely unavailable, lower-class households select themselves into the lower end of the market for owned homes. On the other hand, we expect that the family as allocation mechanism for housing reduces housing wealth inequalities, since labor market income becomes a less important determinant of housing consumption.

After the political turmoil due to the fall of communism, housing systems in Hungary and Slovenia became more alike to those in the neighboring Mediterranean countries with a market economy. This *privatized ownership regime* can be characterized by a withdrawal of (the already limited) government interventions in the housing market since 1990. A large share of social rental housing has been privatized (Pichler-Milanović, 1999). Some surpassed the under-developed housing finance system by taking out loans in foreign currencies, but in most cases the family kept its central role in the provisioning of housing. Due to the absence of spatial planning policies during

Table 2.1. Descriptive information on countries in different housing wealth accumulation regimes

Housing wealth accumulation regime	Country	Homeownership rate in 1960	1980	2010	Normal loan-to-value (2005 - 2010)	Loan maturity in years (2005 - 2010)
Regulated rental	Germany	29%	30%	53%	70 - 80%*	20-30
	Switzerland	34%	30%	44%	65%	15-20
	Austria	38%	52%	57%	70 -85%*	25
Privatized rental	Estonia	x	26%	86%	70-75%	Up to 30
	Poland	x	36%	81%	80 - 100%	5-32,5
	Czech Republic	x	53%	79%	70 - 85%*	20
Regulated expansion	Belgium	50%	59%	72%	80 - 90%	20
	France	42%	47%	62%	66 - 100%	15-20
Liberal expansion	Denmark	40%	56%	67%	80%	30
	Sweden	47%	58%	56%	85 - 95%	30-45
	Netherlands	30%	42%	67%	95 - 100%**	30
Family ownership	Italy	46%	59%	72%	55 - 80%**	5-20
	Portugal	45%	52%	75%	80 - 90%	30-40
Privatized ownership	Slovenia	x	69%	78%	50%*	10
	Hungary	x	71%	90%	70%	5-35
Liberal ownership	Spain	53%	73%	83%	80 - 100%**	15-20

* = *Bausparen* important element of finance

** = RMBS important element of housing finance

Source: Atterhög and Song, 2009; De Decker, 1990; Dol and Haffner, 2010; Donner, 2000; Miles and Pillonca, 2008; Oswald, 1999; Warnock and Warnock, 2008.

the transformation period, new construction often took the form of self-help (Stephens *et al.*, 2015). We expect tenure inequalities in the privatized ownership regime to be even smaller than in the family ownership regime, since rental housing has never been a stigmatized housing tenure for the poor under communism (Andrusz *et al.*, 2008). Furthermore, we expect housing wealth inequality to be smaller among the 1930-1949 cohort than among the 1950-1962 cohort, since the

former obtained their housing in a time in which there was a weaker link between labor market income and housing consumption.

Spain is the only country classified in the *liberal ownership regime*. In the 1990s, Spain took a radical different turn than the other Mediterranean countries by liberalizing its housing finance system. Mortgage securitization allowed banks to offer loans with a loan-to-value ratio of up to 100% (Schwartz and Seabrooke, 2008). This increased the borrowing capacity of households and fueled a construction boom (Cano Fuentes *et al.*, 2013). The role of the family in the provision and allocation of housing has largely been taken over by the market. This change in the political economy of housing resulted in an upswing of homeownership rates from 73% in 1980 to 83% in 2010 (see Table 2.1). Families that could not afford homeownership in the familialistic system, have been able to enter homeownership due to the eased capital restrictions. We therefore expect tenure inequality to be lower in the younger (1950-1962) than in the older cohort (1930-1949), that is likely to have bought the first home before 1980. We expect that housing wealth inequality between occupational classes is larger among the younger cohort than among the older cohort because liberal housing finance allows especially lower- and middle-class households to enter homeownership without accumulating housing wealth (due to large mortgages with long maturities).

Data and method

Data

Our analysis is based on the fourth wave of the Survey of Health and Retirement in Europe (SHARE). This is an international longitudinal, ex-ante harmonized survey, carried out in 16 countries (Austria, Germany, Sweden, the Netherlands, Spain, Italy, France, Denmark, Switzerland, Belgium, Czech Republic, Poland, Hungary, Portugal, Slovenia and Estonia) in 2011/12. Contact, cooperation and retention rates are high (around 90, 60 and 50%), but differ considerably between countries (Malter and Börsch-Supan, 2013). Information from the second (2006) and the third wave (2008) is used to enrich the data from

the fourth wave. In this way, we are able to link information from spouses and other family members who passed away or dropped out before the fourth wave to those who participated in wave four. The use of the SHARE-data has three major advantages. First, it is one of the few international comparative datasets containing information on (housing) wealth. Second, SHARE has a large sample size in all 16 countries that are included. In total, 59,599 respondents participated in wave four, with a minimum of 1,623 in Germany, and a maximum of 6,828 in Estonia. Germany, Poland and Sweden have relatively few participants in this wave, because no refreshment sample has been added. The third advantage of the SHARE is that countries belonging to various welfare regimes and housing systems are represented.

Sample

One record is kept for each household, containing information on both partners or the relevant partner for that respective variable, as our most important variable is measured at the household level. Two sample restrictions are imposed. First, for clarity of presentation, we focus on two birth cohorts, 1930–1949 and 1950-1962 (further described below). Second, widowed female-headed households in which the husband died before wave three are excluded. It is likely that the occupational status of these households will be underestimated as the husbands' occupational status is often higher than the wife's. These sample restrictions reduce the sample by 20%.

Variables

Housing wealth, the variable of main interest, is measured at the household level. Housing wealth is the market value of the first dwelling and potentially a second property (gross housing wealth) minus the residential debt. The current market value is derived from self-evaluation by the respondent. Previous studies using the same, admittedly subjective measure have proven its reliability (Ansell, 2014; Mulder *et al.*, 2015). Top-coding at the 99.8-percentile is used to remove outliers. Home-owning households with no information on their housing wealth receive a missing value. To facilitate comparisons between countries with different currencies and levels of economic

affluence, housing wealth is calculated as a percentage of the average housing wealth holdings of all homeowners in a country. Residential debt is included as a separate variable, as one of the drivers of housing wealth. It is calculated as percentage of the value of the house, to evaluate the role of housing finance in different housing wealth accumulation regimes.

Occupational class is measured with a four-category classification of occupational class based on the ISCO-code, additionally distinguishing the self-employed. Elementary occupations, plant and machine operators, and skilled agricultural or fishery workers are classified as 'low'. Crafts and related trade workers, service workers and shopkeepers and clerks are classified as 'middle'. Technicians, associate professionals, professionals and legislators, senior officials and managers are classified as 'high'. The self-employed are treated as a separate category, as they are often less protected by welfare arrangements, and the owned home forms part of their means of production (Kurz, 2004). For retired, sick or unemployed respondents, information about the last job held, is used. For those who are still working, we use information about the current job. The highest occupational class status in the household is allocated to all members, since they are assumed to pool resources.

Two birth cohorts are distinguished to investigate how the distribution of housing wealth across occupational classes developed over time.[1] The older cohort includes those who were born from 1930 to 1949, the younger cohort those who are born from 1950 to 1962. We exclude respondents who are born after 1962, since they do not belong to the sample of the fourth wave of SHARE (aged 50 and older in 2012). We exclude respondents who are born before 1930 because their number is too small. The distinction between an 'older' and a 'younger' cohort is based on the average age of entering homeownership in

1 A cohort-comparison to assess developments over time is based on the assumption that occupational classes have a similar size and meaning in the two cohorts. The proportional size of social classes barely differs between the two cohorts. We assume that the meaning of these broad occupational classes shows larger cross-country than cross-time variation. Furthermore, the stability and comparability of occupational structures has been demonstrated in a large body of research on occupational stratification since the 1960s (e.g. Erikson and Goldthorpe, 1992).

the countries in our sample, assuming that people generally enter homeownership between the ages of 30 and 35 (although there is some cross-country variation: see Angelini *et al.* 2013). This assumption would imply that nearly all members of the 1950-1962 cohort have bought their first home after the changes in housing regimes that were introduced in the 1980s, whereas a majority of those in the 1930-1949 cohort has entered the market of owned homes during the period of government-sponsored expansion of homeownership - before the onset of trends towards privatization and housing finance liberalization in the 1980s. Respondents are assigned to the cohort of the oldest household member (mostly the male partner).

Method

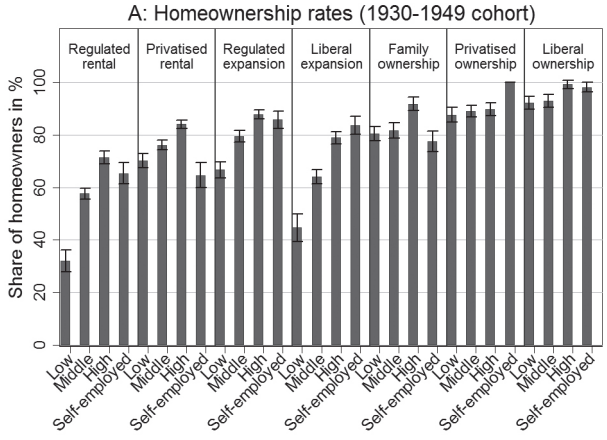
We present a descriptive overview of average homeownership rates, housing wealth holdings and mortgage debts relative to the national mean for each of the four occupational classes (low / middle / high / self-employed) in an older (1930–1949) and a younger (1950–1962) birth cohort, pooled in seven housing wealth accumulation regimes. Homeownership rates indicate how many people are eventually able to accumulate housing wealth. Average housing wealth holdings shed light on the financial consequences of residing in homeownership. Residential debts in later life, finally, show the share of people that has been unable to accumulate housing wealth even though they entered homeownership. We focus on housing wealth inequality among homeowners only, since the mechanisms explaining tenure inequality would distort the image when tenants would be included. We compare the homeownership rate, housing wealth holdings of homeowners and mortgage debts of homeowners for different occupational classes across the seven housing wealth accumulation regimes. Furthermore, we compare these indicators across the two birth cohorts to evaluate the outcomes of policy changes. We present our descriptive statistics along with 90%-confidence intervals. This allows us to draw conclusions with regard to the statistical significance of the above-mentioned intra-cohort differences between occupational classes and inter-cohort comparisons indicating change over time. The choice for a 90%-confidence level is justified by the

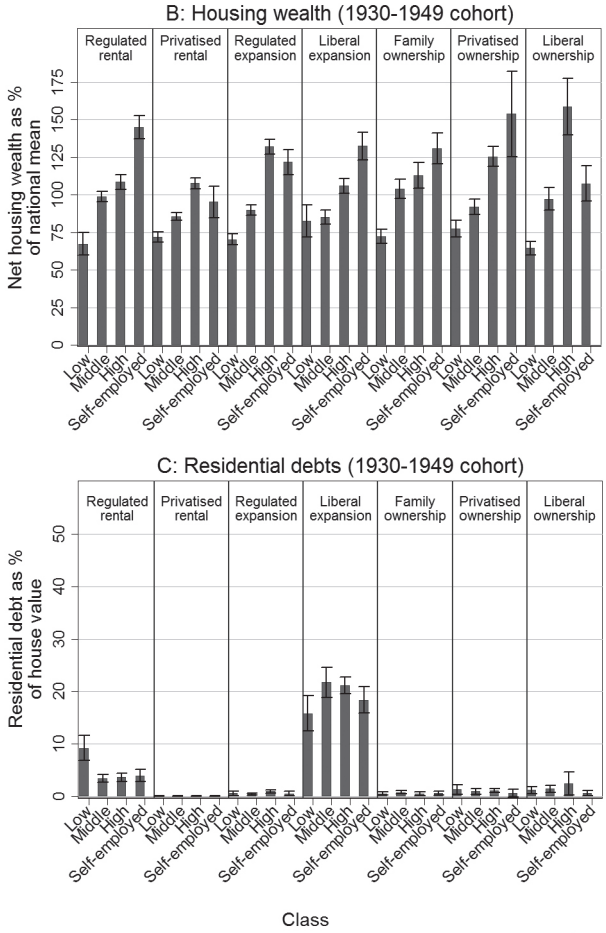
argument that change over time is often slow, which makes it harder to detect significance.

Results

Tenure and housing wealth inequality – considered along the lines of occupational classes – take on a different form in the seven housing wealth accumulation regimes, and these differences seem to be associated with the political economy of housing (Table 2.1). First, we discuss differences between housing wealth accumulation regimes on the basis of housing wealth holdings of homeowners in the older birth cohort (1930-1949). Second, we discuss the consequences of policy changes over time in each of the regimes by comparing the housing wealth holdings, homeownership rates and residential debts of two birth cohorts (1930-1949 and 1950-1962). The results are graphically presented in Figure 2.1 (see Table 2.3 for precise figures), and summarized in Table 2.2. Throughout our discussion of results, 'differences' and 'changes' are only discussed when they are statistically significant.

Figure 2.1. Tenure, housing wealth and residential debt for different occupational classes in housing wealth accumulation regimes.





Note: results are displayed for the 1930-1949 birth cohort only. Source: Share wave 2,3,4 (own computation).

Housing wealth inequality across accumulation regimes in the oldest cohort (1930-1949)

Differences between housing wealth accumulation regimes are evaluated on the basis of cross-regime comparisons of homeownership rates and housing wealth inequality (among homeowners) between social classes in the 1930-1949 cohort (Figure 1). The outcomes for the seven regimes are discussed separately, while pointing out the mechanisms that shape these distributions.

Regulated rental regime

The countries in the regulated rental regime (Germany, Switzerland, Austria) have low homeownership rates due their large, non-stigmatized and broadly accessible rental sectors (Hoekstra, 2009). Our findings suggest that especially among the lowest occupational class, homeownership rates are lower than in any other regime. Figure 2.1(a) shows that the lowest occupational class in the 1930-1949 birth cohort has a homeownership rate of 32%, compared with 71% for the highest occupational class. The expectation that the smallest expansion of homeownership during the period 1945-1980 co-occurs with the smallest housing wealth inequalities only partly holds. As shown in Figure 2.1(b), the housing wealth holdings of the lowest class in the 1930-1949 cohort are 67% of the national mean, compared to 108% for the highest occupational class. Only the liberal expansion regime (Denmark, Sweden, the Netherlands) is characterized by a clearly smaller difference between the lowest and the highest classes in terms of housing wealth in the 1930-1949 birth cohort. A slightly smaller difference in housing wealth holdings between the highest and lowest occupational classes can be found in the privatized rental regime (Czech Republic, Poland, Estonia). All three regimes with limited housing wealth inequality among the 1930-1949 cohort had large rental sectors until the 1980s.

Table 2.2. Overview of housing wealth inequality and underlying mechanisms in different housing wealth accumulation regimes

	Housing policy		Class comparison (low vs. High)		Cohort comparison (1930-1949 vs 1950-1962)	
	1945-1980	*1980-2010*	*Level of housing wealth inequality*	*Mechanism*	*Development of housing wealth inequality*	*Mechanism*
Regulated rental	Rental	Continued regulation	Small	Selectivity of homeownership	Decline in the middle class	Increasing debts
Privatized rental	Rental	Privatization	Small	Legacy of state redistribution	Increase in the higher class	Stronger link between labour market income and housing consumption
Regulated expansion	Expansionist	Continued regulation	Large	Reinforcement of labor market inequality	Decline in the middle and higher class	Increasing age of entry into homeownership
Liberal expansion	Expansionist	Liberalization	Very small	Selectivity of homeownership / Legacy of state redistribution	Decline in the lower class	Increasing debts / Decreasing selectivity of homeownership
Family ownership	Home-ownership	Continued role of the family	Small	Family pooling	Decline in the middle class	Decline of self-construction / weakened stability of employment
Privatized ownership	Home-ownership	Privatization	Medium	Legacy of state redistribution / family pooling	Non-significant decline in the lower class	Stronger link between labour market income and housing consumption
Liberal ownership	Home-ownership	Liberalization	Very large	Selectivity of homeownership	Increase in the lower class	Housing boom / Increasing selectivity of housing

Privatized rental regime

In the countries in the privatized rental regime (Czech Republic, Poland and Estonia), homeownership rates among all occupational classes are very high due to the privatization of the large stock of public housing after the fall of communism. Figure 2.1(a) shows that 70% of the lower-class households in the 1930-1949 birth cohort are homeowners, whereas 84% of the higher-class households in this cohort are homeowners. The high homeownership rates are not mirrored by large housing wealth inequality between occupational classes. For the oldest cohort, housing wealth differences between the lower and higher occupational classes are smaller than in most other regimes (Figure 2.1[b]). For the 1930-1949 birth cohort, housing wealth holdings of the lowest occupational class are 72% of the national mean, whereas housing wealth holdings of the highest occupational class are 108% of the national mean. Since most households in this cohort bought the rental dwelling they were living in under communism, the heritage of state redistribution in the sphere of housing materialized as housing wealth in the hands of the 1930-1949 cohort, at least when looking from a relative, within-country perspective.

Regulated expansion regime

In the regulated expansion regime (France, Belgium), homeownership is stimulated in a state-market nexus, with subsidies and loans, which is associated with higher homeownership rates among the lower and middle classes than in the German-speaking countries in the regulated rental regime, or the countries in the liberal expansion regime (Denmark, Sweden, the Netherlands). In the 1930-1949 birth cohort, 67% of the households in the lowest occupational class are homeowners, compared to 88% of the households in the highest occupational class. Housing wealth inequalities between occupational classes in the 1930-1949 birth cohort are larger than in most other regimes (except the liberal homeownership regime Spain), which can be expected on the basis of the relatively large and market-based expansion of homeownership. Figure 2.1(b) shows that housing wealth holdings of a lower-class household in the 1930-1949 cohort are more than sixty percentage points lower than those of a

higher class household (respectively 70% and 132% of the national mean). We suggest that the market-based provisioning of housing, in which a combination of down-payments and loans are needed to acquire homeownership, reinforces the inequality originating from the labor market, as the latter determines purchasing power in the housing market.

Liberal expansion regime

The countries in the liberal expansion regime (Denmark, Sweden, the Netherlands) have a large non-stigmatized rental sector, combined with liberal housing finance for homeowners. Before the housing finance liberalization, policies in this regime encouraged (especially lower- and middle-class) homeownership with state subsidies. A comparison with the regulated rental regime in the German-speaking countries (which had a similar starting point regarding tenure balance after WWII) shows that state support for homeownership is indeed associated with higher homeownership rates among the lower- and middle classes (Figure 2.1[a]). In the 1930-1949 birth cohort, the homeownership rate of the lowest occupational class is 45%, relative to 79% of the highest occupational class. However, for the oldest birth cohort housing wealth is distributed more equally than in any other regime. Figure 2.1(b) shows that housing wealth holdings of the highest class are only slightly higher than those of the lowest occupational class (respectively 106% and 83% of the national mean). Apparently, housing wealth and housing wealth gains of homeowners are distributed more equally among social classes in these countries, which are also more strongly wedded to social-democratic principles of equality and redistribution, exemplified by subsidies for housing construction.

Family ownership regime

The Mediterranean countries who belong to the family homeownership regime (Italy and Portugal) have a long tradition of homeownership due to family provision and a lack of rental housing. This results in relatively small tenure inequality between occupational classes. The homeownership rate among the lowest class in the 1930-1949 birth

cohort is 80%, whereas it is 92% for the highest class in this cohort (see Figure 2.1[a]). Housing wealth inequalities are more pronounced than tenure inequalities. As shown in Figure 2.1(b), housing wealth holdings of the lowest class in the 1930-1949 cohort are 72% of the national mean, whereas housing wealth holdings of the highest occupational class in this cohort are 113%. However, inequalities are smaller than in regimes where access to homeownership is strongly market-based (regulated expansion regime, i.e. France and Belgium) or where the inclusion of lower-class households in homeownership resulted in a low housing wealth holdings for this class (liberal homeownership regime - Spain). We envisage that the strong role of the family in the provisioning of housing entails the pooling of resources, and often a redistribution from richer to poorer family members.

Privatized ownership regime

The post-communist Southern-European states in the privatized homeownership regime (Hungary and Slovenia) have slightly higher homeownership rates than their Mediterranean counterparts (the family ownership regime). The homeownership rate among the lowest social class is 88% in the 1930-1949 birth cohort, and 90% among the highest social class. When the older cohorts of the family ownership regime and the privatized ownership regime are compared, it is visible that especially among the lowest social class, homeownership rates are higher in the countries with a communist legacy. The privatization of public housing enabled members of the lower class in particular to become homeowners. Housing wealth inequality for the 1930-1949 birth cohort is smaller in the privatized homeownership regime than in the regulated expansion regime (France and Belgium), but larger than in the family homeownership regime (Italy and Portugal). In the 1930-1949 birth cohort, whose members obtained their homes generally under communism, housing wealth holdings of the lowest occupational class are 77% of the national mean, whereas housing wealth holdings of the highest occupational class are 125% of the national mean. We suggest that the legacy of state-involvement in the rental sector under communism, and the subsequent give-away privatization has resulted in a more

equal distribution of housing wealth among occupational classes than in the regulated expansion regime, where the entry into homeownership is more limited and market-driven. The larger difference between the lowest and the highest occupational classes in terms of housing wealth in the privatized homeownership regimes compared to the family homeownership regime may perhaps be explained by larger differences in the quality of housing in the former. Housing wealth inequality for the 1930-1949 birth cohort is larger in the privatized homeownership regime than in the privatized rental regime (also with a communist legacy). This may be due to the link between income and housing consumption being traditionally stronger in the privatized ownership regime, given a long tradition of self-construction under communism, instead of the construction of large rental estates.

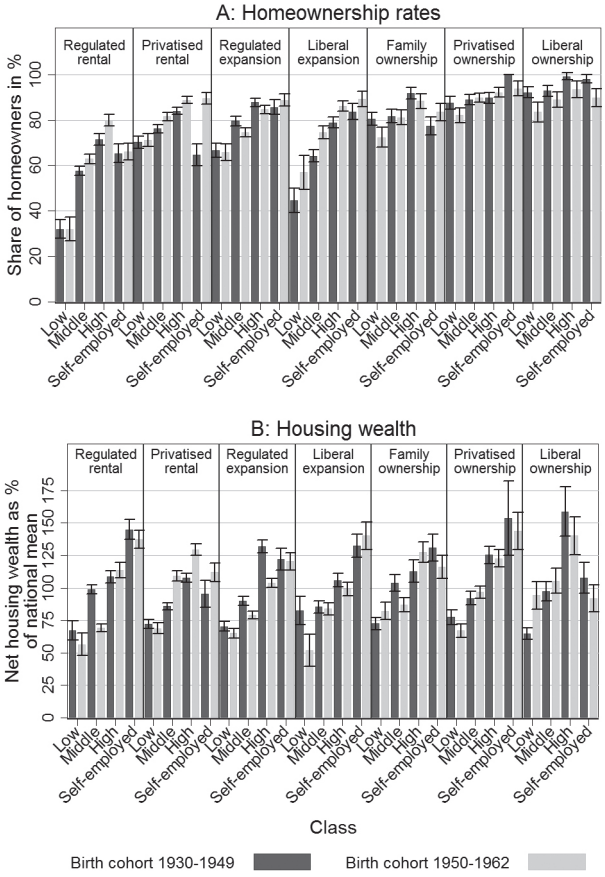
Liberal ownership regime

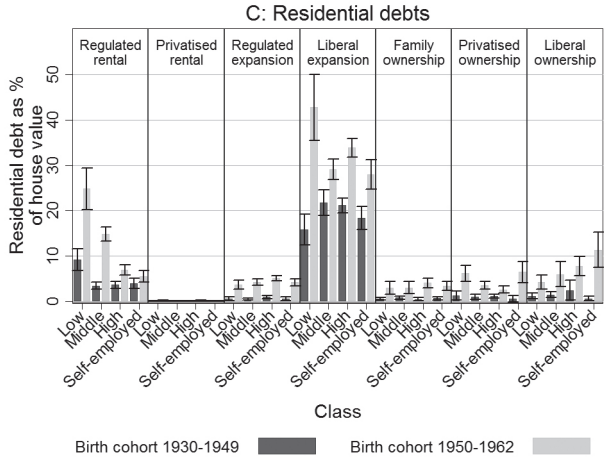
In the liberal homeownership regime (Spain), a long tradition of self-provisioned homeownership, succeeded by the liberalization of housing finance has resulted in almost universal homeownership. Therefore, tenure inequality between occupational classes is very limited. For the older birth cohort, the homeownership rates amounts to 92% for the lowest occupational class, compared to 99% among the highest occupational class (Figure 2.1[a]). The low level of tenure inequality is however mirrored by very large housing wealth inequality. As shown in Figure 2.1(b), housing wealth holdings of the lowest class in the 1930-1949 cohort are 65% of the national mean, whereas housing wealth holdings of the highest occupational class in this cohort amount to 159%. In other words, the lower class in the older cohort was able to enter homeownership, but at the price of lower housing wealth holdings. Although this large difference in housing wealth holdings between social classes for the older cohort may reflect housing quality differences rather than the effect of housing finance liberalization, we see that differences in this regime are larger compared with differences in the family ownership regime. We derive from this that housing finance liberalization also affected the older birth cohort to quite a large extent.

Housing wealth inequality across cohorts

Developments within housing wealth accumulation regimes are now evaluated on the basis of a comparison between the housing wealth holdings of different occupational classes in the 1930-1949 and 1950-1962 cohort (Figure 2.2). Changes in housing policies since the 1980s are expected to shape the difference between the older and younger cohort in terms of housing wealth since it is likely that they bought their first home under different circumstances, and are thus differently affected by house price developments. The outcomes for the seven regimes are discussed separately, while pointing out the dominant mechanism(s) shaping changes in the distribution of housing wealth over time.

Figure 2.2. Tenure, housing wealth and residential debt inequality for four occupational classes in housing wealth accumulation regimes for two birth cohorts





Legend:
Regulated rental regime
- Germany, Switzerland, Austria

Privatised rental regime
- Czech Republic, Poland, Estonia

Regulated expansion regime
- France, Belgium

Liberal expansion regime
- Denmark, Sweden, the Netherlands

Family ownership regime
- Italy, Portugal

Privatised ownership regime
- Hungary, Slovenia

Liberal ownership regime
- Spain

Note: results are displayed for four occupational classes in the 1930-1949 birth cohort and the 1950-1962 birth cohort. Source: Share wave 2,3,4 (own computation).

Regulated rental regime

In the regulated rental regime (Germany, Switzerland, Austria), the expansion of homeownership is associated with higher homeownership rates among the middle and higher classes in the 1950-1962 cohort. Homeownership rates increased from 58% to 63% for the middle class, and from 71% to 80% for the highest class (see Figure 2.2[a]). Due to the relatively low homeownership rates among the higher class, the potential for expansion has been large. For

mortgage-lenders, this form of expansion entails smaller financial risks than expansion to the lower or middle classes. The selective expansion among the higher social class has resulted in an increase in tenure inequality in this regime. When the younger cohort is compared to the older cohort, housing wealth holdings of the middle class fall from 99% to 69% of the national mean. The relative decline of housing wealth holdings among the lowest occupational class is not significant. The lower- and middle-class households in the regulated rental regime experience one of the sharpest upswings in terms of residential debt. Among the lowest occupational class, residential debts increased from 9% to 25% percent of the house value, whereas debts increased from 3% to 15% among the middle class. It is likely that households in the lower socioeconomic strata in the younger cohort are increasingly dependent on mortgage finance to enter homeownership (e.g. due to the reduction of self-construction). Therefore, we suggest that the increased housing wealth inequality is mainly the result of an increased take-up of mortgage debt.

Privatized rental regime

In the privatized rental regime (Czech Republic, Poland, Estonia), the homeownership rate for the middle class increased with five percentage points to 81%, and with five percentage points to 89% for the higher class. The self-employed display the largest increase, from 65% to 90%. In the transition from a socialist to a free-market economy, the number and social position of entrepreneurs (often part of the old party *nomenclatura*) increased. Although tenure inequality between social classes is smaller than in most other regimes, the lower homeownership rates among the lower class may indicate that they have been less able to profit from the privatization of public housing. When the housing wealth holdings of the younger cohort are compared with the older cohort, the middle and higher classes improve their position. Figure 2.2(b) shows that housing wealth holdings of the middle class rise with 22 percentage points to 108%, and housing wealth holdings of the highest occupational class rise with 21 percentage points to 129% of the national mean in the 1950-1962 birth cohort. We suggest that the larger housing wealth inequality

between occupational classes is the result of the stronger link between labor market income and housing consumption at the moment the younger cohort bought their first home (more often after the fall of communism).

Regulated expansion regime

The regulated expansion regime (France, Belgium) shows slightly lower homeownership rates in the younger cohort (75%), compared to the older cohort (79%). The overall upswing in homeownership rates since 1980 (Table 2.1) is likely to have materialized for the younger cohorts (the current middle-aged), which are not included in our analysis sample. The distribution of housing wealth became more equal for the 1950-1962 cohort. As shown in Figure 2.2(b), housing wealth holdings of the middle class dropped from 90% to 79%, and housing wealth holdings of the highest occupational class dropped from 132% to 104% of the national mean. We envisage that this may simply be explained by an increasing age of entry into homeownership, leading to later amortization of mortgages. Although this mechanism is relevant for all our housing wealth accumulation regimes, for the regulated expansion regimes it is likely the only mechanism at work. The stable position of the lower class may be the result of targeted homeownership stimulation and protection schemes in these countries, e.g. *pret-à-taux-zero* schemes. The low mortgage debts among both cohorts (Figure 2.2[c]) show that mortgages are however generally amortized in later life (due to the stricter loan criteria).

Liberal expansion regime

The liberal expansion regime (Denmark, Sweden, and the Netherlands) displays rising homeownership rates among the lower, middle and higher occupational classes, when the 1950-1962 birth cohort is compared to the 1930-1949 cohort. The largest increase can be found in the middle class, from 64% in the oldest cohort to 75% in the youngest cohort. The increase among the lowest occupational class is considerable, but has a fairly large confidence interval. It is worth remarking that the liberal expansion regime is the only regime in which homeownership rates increased among the lower class.

We suggest this is the result of the liberalization of housing finance, which reduced borrowing constraints for prospective homeowners. However, housing wealth holdings of the lower class are strikingly lower in the younger cohort than in the older cohort. Their housing wealth holdings drop from 83% of the national mean in the 1930-1949 birth cohort, to 52% in the 1950-1962 cohort (Figure 2.2[b]). The high loan-to-value ratios, and the long loan maturities that came with the liberalization of housing finance, allowed especially the lower classes to enter homeownership. As a result, mortgage debts are far larger in the liberal expansion regime, than in any other regime. Figure 2.2(c) shows that residential debts are between 16% and 21% of the market value of the home in the 1930-1949 birth cohort, and between 29% and 43% of the market value of the home in the 1950-1962 birth cohort. The large residential debts among the population aged 50 and over imply that for many (those with interest-only mortgages) their entire housing wealth is based on capital gains. Therefore, we suggest that the upswing in housing wealth inequality between the lower and higher occupational class is mainly the result of a larger take-up of mortgage debt.

Family homeownership regime

In the family homeownership regime (Italy, Portugal), homeownership rates fall among the lower class, whereas housing wealth drops among the middle class. We point at three possible explanations behind the drop of homeownership rates among the lower class (from 80% to 72%). First, the working-class housing strategy of self-construction became less accepted over time (Allen, 2006). Second, housing finance was not available to fill this gap (Mulder and Billari, 2010). Three, access to a secure labor market position has become increasingly difficult for young people in these countries, resulting in later ages of nest-leaving (Aassve *et al.*, 2001). Thus, lower class-members in the younger generation are less likely to be in homeownership. While this is not the case among the middle class, middle class-members of the younger cohort have lower housing wealth holdings compared to the older cohort. The housing wealth position of the middle class decreases to 87% of the national mean in the 1950-1960, compared to

104% in the 1930-1949 cohort. We argue that the increase of precarious labor in the Mediterranean countries forces households to either rent (lower class), or to buy properties with family help (middle class). However, these properties are less valuable that those bought by the older cohort due to the rising prices as a consequence of a lack of housing supply (Poggio, 2012).

Privatized homeownership regime

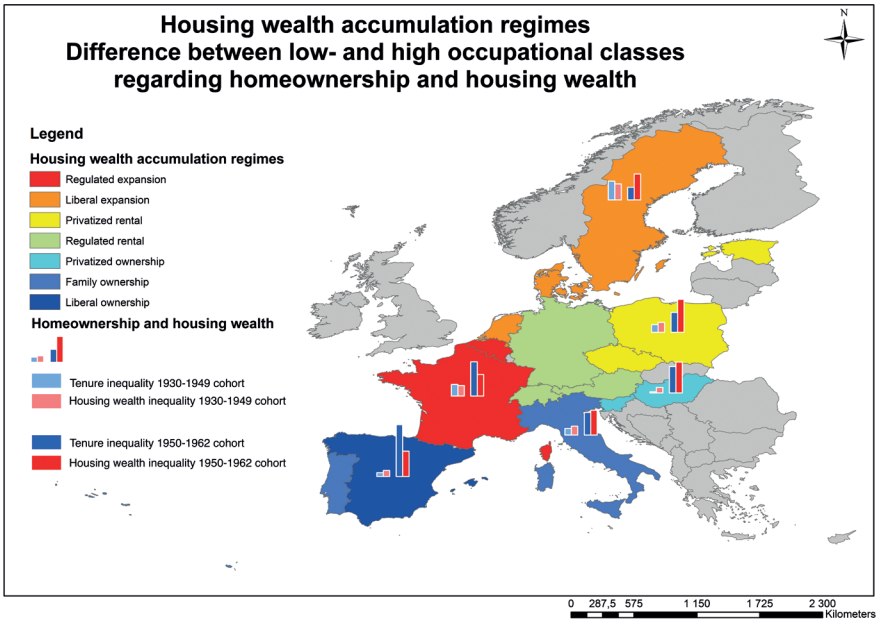
In the privatized homeownership regime (Hungary, Slovenia), homeownership rates dropped for the lowest occupational class. In the 1930-1949 birth cohort, 88% of the households in the lowest class resides in homeownership, compared to 82% in the 1950-1962 birth cohort. We suggest that a drop in labor market income of the lower class obstructed the entry into the post-communist ownership market for the younger cohort. The housing wealth holdings of the lowest occupational class are lower among the 1950-1952 cohort (67%) than among the 1930-1949 cohort (77%). In the privatized ownership regime, it has become increasingly difficult for the lower class to enter homeownership, and when they do, they accumulate less housing wealth. This finding matches previous research, indicating that the lower socioeconomic strata are hardest hit by the political-economic transition after the fall of communism (Heyns, 2005). The increased economic hardship among the lower class can be illustrated by rising residential debts as well (1% for the 1930-1949 cohort, 6% for the 1950-1962 cohort).

Liberal homeownership regime

In the liberal homeownership regime (Spain), a decreasing homeownership rate is visible among the lower and the higher occupational class when the younger cohort is compared with the older cohort. For the lower occupational class, homeownership rates decreased from 92% to 83%, for the higher occupational class rates dropped from 99% to 94% (see Figure 2.2[a]). We suggest that for the lower class the decreasing popularity of self-provisioning as route into homeownership could not be compensated fully by a larger take-up of mortgage finance for the 1950-1962 cohort. In the 1950-

1962 birth cohort, housing wealth inequality between occupational classes is smaller. The lowest occupational class displays a significant increase of 29 percentage points, to 94% of the national mean. The increasing housing wealth holdings of the lowest occupational class are associated with decreasing homeownership rates. This indicates that the lower-class respondents entering homeownership may have become increasingly selective over time, likely in terms of the type of housing (higher value) and perhaps also in terms of the resources they brought with them in the first place. We not however that Spain is a highly specific case, in which a debt-funded construction boom has reshaped dynamics on the housing market since the mid-1999s.

Figure 2.3. Map of tenure and housing wealth inequality in different housing wealth accumulation regimes



Source: SHARE (wave 2, 3, 4), own computation.

Conclusion

Since WWII, homeownership rates increased across Europe as a consequence of policy efforts to make this tenure more attractive relative to rental housing. One of the core arguments underpinning the expansion of homeownership is the belief that residing in this tenure contributes to the wealth accumulation of households. Since more people got access to homeownership, housing wealth became a more important dimension of socioeconomic stratification. The opportunity for different social classes to accumulate housing wealth is however determined by the political economy-nexus in which the expansion of homeownership takes place. We capture cross-national differences in the political economy of housing by the introduction of seven housing wealth accumulation regimes. These regimes are based on the combination of: (a) the expansion of homeownership until 1980, and (b) changes in the political economy of housing since the 1980s. Especially the sale of social housing (privatization), and the liberalization of housing finance – making homeownership accessible for more and more lower-income households, have influenced the opportunity for housing wealth accumulation. For these regimes, we investigate to what extent households from different occupational classes in two birth cohorts (1930-1949 and 1950-1962) are able to enter homeownership (tenure inequality), and to what extent they are able to accumulate housing wealth if they enter homeownership (housing wealth / residential debt inequality). Our findings confirm that different housing wealth accumulation regimes are associated with variegated distributional outcomes in terms of housing wealth. These variegations are driven by several different mechanisms, which are summarized in Table 2.

The expansion of homeownership is generally associated with larger housing wealth inequality between occupational classes. It attracts households with a lower socioeconomic status into this tenure, and their lower purchasing power translates into lower average housing wealth holdings. This process is partly driven by the liberalization of housing finance, since it allows lower-class households to enter homeownership, without amortizing their mortgage loan. In

the liberal expansion regime (Denmark, Sweden, the Netherlands), an explosion of mortgage debt, and the prolongation of these debts into old-age (up to 43% of the house value for the lower class in the 1950-1962 birth cohort), seems to be the main explanation behind the increasing housing wealth inequality between occupational classes.

Our results however also indicate that the expansion of homeownership may also result in a more equal distribution of housing wealth when the political economy of housing decouples housing consumption from labor market income. First, we find that a family-based provision of housing is associated with less housing wealth inequality (familiarization). In the family ownership regime (Italy, Portugal), a long tradition of self-construction and resource pooling within the (extended) family is associated with a more equal distribution of housing wealth. Second, our results suggest that the privatization of public rental housing is associated with less housing wealth inequality among the generation of former tenants. In the privatized rental regime (Estonia, Poland, Czech Republic), the give-away privatization to sitting tenants after the fall of communism materialized the specific allocation preferences of the communist system and is associated with a more equal housing wealth distribution among the older cohort (1930-1949). Such a pattern is less evident in the other regime with a communist legacy, the privatized ownership regime (Hungary, Slovenia). Third, we find that state subsidies for homeownership might reduce housing wealth inequality between occupational classes. In the liberal expansion regime (Denmark, Sweden, Netherlands), the post-war social-democratic governments subsidized affordable homeownership, which is associated with a more equal distribution of housing wealth in the older cohort, which bought its first home under the heydays of these schemes.

To conclude, the expansion of homeownership may have led to an increase in housing wealth inequality between occupational classes in market-based systems of homeownership provision, whereas it reduced housing wealth inequality between occupational classes in systems of homeownership provision in which labor market income is de-coupled from housing consumption. Since the 1980s, market-based systems of housing provision are politically promoted in order to

increase the opportunities for wealth accumulation among the lower and middle class. Ironically, they are less suited to reach this objective than some of the 'older' systems of homeownership provision – in particular family pooling and (communist) state redistribution – that preceded the market-based expansion of homeownership.

To grasp in more detail how housing wealth inequalities are shaped, further research should overcome at least three shortcomings of our study. First, it is important to broaden the scope to younger birth cohorts. With the current data we are not able to grasp the effects of housing finance liberalization on the group that is arguably affected most. Among younger generations, the combination of innovative mortgage products and price developments have had more detrimental effects than for the cohorts that we studied. Second, future research would benefit from studying the interaction between housing wealth and financial wealth as drivers of socioeconomic stratification. For instance, small housing wealth holdings could be complemented by large financial wealth holdings. Finally, we have only elaborated upon the link between occupational class and the outcome of a housing wealth accumulation process, whereas the process itself is not captured by our analysis. Future research might elaborate on the role of housing careers and occupational- and family life courses as determinant of housing wealth inequality between occupational classes.

Table 2.3. Homeownership rates, housing wealth holdings and residential debts for four occupational classes and two birth cohorts in housing wealth accumulation regimes.

Housing wealth accumulation regime	Occupational class	Homeownership rate (1931-1949) with 10% confidence interval			Homeownership rate (1950-1962) with 10% confidence interval			Housing wealth (1931 - 1949) with 10% confidence interval			Housing wealth (1950 - 1962) with 10% confidence interval			Residential debt (1931-1949) with 10% confidence interval			Residential debt (1950-1962) with 10% confidence interval		
Regulated rental	Low	*28%*	32%	*36%*	*27%*	32%	*37%*	*60%*	67%	*75%*	*48%*	57%	*65%*	*7%*	9%	*12%*	*20%*	25%	*29%*
	Middle	*56%*	58%	*60%*	*61%*	63%	*65%*	*95%*	99%	*102%*	*66%*	69%	*72%*	*3%*	3%	*4%*	*13%*	15%	*16%*
	High	*69%*	71%	*74%*	*77%*	80%	*82%*	*104%*	108%	*113%*	*108%*	114%	*120%*	*3%*	4%	*4%*	*6%*	7%	*8%*
	Self-employed	*61%*	65%	*69%*	*63%*	66%	*70%*	*137%*	145%	*153%*	*130%*	137%	*144%*	*3%*	4%	*5%*	*4%*	6%	*7%*
Privatized rental	Low	*68%*	70%	*73%*	*68%*	71%	*74%*	*68%*	72%	*75%*	*65%*	69%	*73%*	*0%*	0%	*0%*	*0%*	0%	*0%*
	Middle	*74%*	76%	*78%*	*80%*	81%	*83%*	*83%*	86%	*88%*	*105%*	109%	*113%*	*0%*	0%	*0%*	*0%*	0%	*0%*
	High	*82%*	84%	*86%*	*87%*	89%	*90%*	*104%*	108%	*111%*	*125%*	129%	*134%*	*0%*	0%	*0%*	*0%*	0%	*0%*
	Self-employed	*60%*	65%	*69%*	*87%*	90%	*92%*	*85%*	95%	*106%*	*105%*	112%	*119%*	*0%*	0%	*0%*	*0%*	0%	*0%*
Regulated expansion	Low	*64%*	67%	*70%*	*62%*	66%	*70%*	*67%*	70%	*74%*	*61%*	65%	*69%*	*0%*	1%	*1%*	*3%*	4%	*5%*
	Middle	*77%*	79%	*82%*	*72%*	75%	*77%*	*87%*	90%	*93%*	*76%*	79%	*82%*	*0%*	0%	*1%*	*3%*	4%	*5%*
	High	*86%*	88%	*90%*	*83%*	85%	*87%*	*127%*	132%	*137%*	*100%*	104%	*107%*	*1%*	1%	*1%*	*5%*	5%	*6%*
	Self-employed	*82%*	86%	*89%*	*86%*	89%	*91%*	*114%*	122%	*130%*	*114%*	120%	*127%*	*0%*	1%	*1%*	*3%*	4%	*5%*
Liberal expansion	Low	*39%*	45%	*50%*	*50%*	57%	*64%*	*72%*	83%	*93%*	*40%*	52%	*64%*	*12%*	16%	*19%*	*35%*	43%	*50%*
	Middle	*61%*	64%	*67%*	*72%*	75%	*77%*	*81%*	85%	*90%*	*79%*	84%	*88%*	*19%*	22%	*25%*	*27%*	29%	*31%*
	High	*77%*	79%	*81%*	*84%*	86%	*88%*	*101%*	106%	*111%*	*94%*	99%	*104%*	*20%*	21%	*23%*	*32%*	34%	*36%*
	Self-employed	*80%*	84%	*87%*	*86%*	89%	*93%*	*123%*	132%	*142%*	*130%*	140%	*151%*	*16%*	18%	*21%*	*25%*	28%	*31%*
Family ownership	Low	*78%*	80%	*83%*	*68%*	72%	*77%*	*68%*	72%	*77%*	*75%*	82%	*89%*	*0%*	0%	*1%*	*2%*	3%	*4%*
	Middle	*79%*	82%	*85%*	*78%*	81%	*84%*	*97%*	104%	*110%*	*81%*	87%	*93%*	*0%*	1%	*1%*	*2%*	3%	*4%*
	High	*89%*	92%	*94%*	*85%*	88%	*91%*	*104%*	113%	*121%*	*120%*	127%	*135%*	*0%*	0%	*1%*	*3%*	4%	*5%*
	Self-employed	*74%*	77%	*81%*	*80%*	83%	*87%*	*120%*	131%	*141%*	*107%*	116%	*125%*	*0%*	1%	*1%*	*2%*	3%	*4%*

Table 2.3. Continued

Housing wealth accumulation regime	Occupational class	Homeownership rate (1931-1949) with 10% confidence interval			Homeownership rate (1950-1962) with 10% confidence interval			Housing wealth (1931 - 1949) with 10% confidence interval			Housing wealth (1950 - 1962) with 10% confidence interval			Residential debt (1931-1949) with 10% confidence interval			Residential debt (1950-1962) with 10% confidence interval		
Privatized ownership	Low	*85%*	88%	*90%*	*79%*	82%	*85%*	*72%*	77%	*83%*	*62%*	67%	*72%*	*0%*	1%	*2%*	*4%*	6%	*8%*
	Middle	*87%*	89%	*91%*	*88%*	90%	*92%*	*87%*	92%	*97%*	*92%*	97%	*101%*	*0%*	1%	*1%*	*3%*	3%	*4%*
	High	*87%*	90%	*92%*	*90%*	92%	*94%*	*119%*	125%	*132%*	*116%*	123%	*129%*	*1%*	1%	*1%*	*2%*	3%	*3%*
	Self-employed	*100%*	100%	*100%*	*91%*	94%	*97%*	*125%*	154%	*182%*	*130%*	144%	*158%*	*0%*	1%	*1%*	*4%*	6%	*9%*
Liberal ownership	Low	*90%*	92%	*94%*	*79%*	83%	*88%*	*60%*	65%	*69%*	*84%*	94%	*105%*	*0%*	1%	*2%*	*3%*	4%	*6%*
	Middle	*90%*	93%	*95%*	*85%*	89%	*92%*	*90%*	97%	*105%*	*96%*	105%	*115%*	*1%*	1%	*2%*	*3%*	6%	*9%*
	High	*98%*	99%	*101%*	*90%*	94%	*97%*	*140%*	159%	*178%*	*126%*	140%	*155%*	*0%*	2%	*5%*	*6%*	8%	*10%*
	Self-employed	*96%*	98%	*100%*	*86%*	90%	*94%*	*96%*	108%	*119%*	*81%*	92%	*102%*	*0%*	1%	*1%*	*7%*	11%	*15%*

Note: Results are displayed for occupational classes in two cohorts. Source: Share wave 2, 3, 4 (own computation).

CHAPTER 3

Homeownership and Housing Wealth of Elderly Divorcees in Ten European Countries

Abstract

Recent research shows that divorce reduces the likelihood of residing in homeownership. Even in later life, ever-divorced men and women display lower homeownership rates than their married counterparts. There is however a lack of knowledge about the consequences of divorce for a majority of divorcees: those who remain in homeownership, or move back into homeownership after an episode in rental housing. This chapter investigates the economic costs of divorce by focusing on the housing wealth of ever-divorced homeowners in later life (age 50 and over), against the background of changing welfare and housing regimes. The empirical analysis is based on data from 10 European countries that participated in the third and fourth wave of the Survey of Health, Aging and Retirement in Europe (SHARE 2007/8 – 2011/2). Our analyses suggest an association between divorce experience and lower housing wealth holdings for men and women who remain in homeownership after a divorce, or re-enter homeownership after a spell in rental housing. This means that a divorce has negative housing consequences for a broader range of individuals than thus far assumed. In countries with a dynamic housing market and a deregulated housing finance system, ever-divorced homeowners are worse off than their married counterparts. In these countries, more elderly individuals with a weaker financial situation are able to remain in or regain access to (mortgaged) homeownership, but at the cost of lower housing equity.

A slightly different version of this chapter was published as: Wind, B., and Dewilde, C. (2016). Home-ownership and housing wealth of elderly divorcees in ten European countries. *Ageing & Society*, (Online First), 1-29.

Introduction

Since the 1970s, divorce has become more common across the Western World, although there is considerable international variation. In Europe, the highest divorce rates can be found in the Nordic countries (around 50%), whereas the Mediterranean countries have the lowest rates (Eurostat, 2015). Sociologists have studied the rise of divorce in two ways. First, there are studies that explain the rising divorce rate and its determinants as part of the wider de-standardization of the life course (Fogli and Veldkamp, 2011). Second, there is a large body of research on the social and economic consequences of divorce. Divorce is found to impact negatively upon the wellbeing of children, the economic situation of women, the social situation of men and the likelihood of intergenerational transfers (Gruber, 2004; Kalmijn, 2007; Uunk, 2004).

Housing researchers have pointed out that many of the negative effects of divorce pertain to the housing situation. After a divorce, moves from homeownership (the former marital home) to rental housing are very common. Time stress and financial stress after a divorce are the main motivators why divorcees move down the housing ladder in terms of tenure (Dewilde, 2008). However, the severe housing consequences of divorce pertain in the long run. Even in later life, many years after the marital dissolution, (especially female) divorcees are found to have a far larger chance of residing in rental housing than homeownership due to a decayed economic position, combined with reduced possibilities for income-pooling (unless someone re-partners), which excludes them from financial and other benefits of homeownership. Institutional arrangements are found to mitigate the consequences of divorce for the housing situation: generous welfare payments, female employment and the availability of (mortgage) credit reduce the odds of moving into the rental sector after a divorce (Dewilde and Stier, 2014). By focusing on the tenure consequences of divorce, previous research assumes that home-owning divorcees in later life did not experience any negative housing consequences.

This chapter focuses on the majority of all divorcees that is overlooked by previous studies: those who remain in homeownership

or re-enter this tenure after a spell in rental housing (60-70% in most countries). We compare the housing wealth holdings of divorced homeowners with non-divorced homeowners in later life to demonstrate that divorce affects the socio-economic position of a wider group than thus far assumed. Housing wealth is operationalized as the current market value of the owned home, minus any mortgage debts. It is likely that divorced homeowners display lower housing wealth holdings than couples with an intact first marriage, due to downward moves on the property ladder, temporary episodes in rental housing, or increased mortgage debt. In an international- comparative study on the tenure consequences of divorce, it is shown that institutional factors (e.g. welfare and housing regimes) might mitigate or reinforce the tenure gap between first-time married couples and divorcees. A housing wealth gap between first-time married couples and divorcees might be affected by different institutional arrangements. We focus on (divorced) homeowners only to tease out the mechanisms that are associated with the housing wealth gap between first-time married couples and divorcees, without focusing on the mechanisms that explain the tenure gap between these groups.

Studying the housing wealth-effect of divorce is urgent because (1) divorce rates are expected to remain high, and (2) housing wealth plays an increasingly important role in the provision of welfare. First, although there is large international variation, divorce rates have increased across Europe (González and Viitanen, 2009). Some scholars argue that divorce rates will fall again, because an increasing number of people cohabit rather than marries (Stevenson and Wolfers, 2007). However, the complex tangle of living arrangements is here to stay, and by researching the consequences of divorce, conclusions can be drawn about the broader economic implications. Second, a shift towards asset-based welfare becomes politically more attractive now that a large share of the elderly possesses housing wealth, which can be used in order to cater for welfare needs (Livsey and Price, 2013). The large share of elderly with housing wealth is mainly the result of a continuous policy focus on the promotion of homeownership in most European countries since the Second World War (Angelini *et al.*, 2013). The relative upswing in house prices since the 1980s, which

accompanied the liberalization of housing finance (OECD, 2014), resulted in financial gains for housing market insiders. Especially the baby boom cohort has been able to profit (Cowell *et al.*, 2012). When disruptive life course events like divorce impede the accumulation of housing wealth into later life for more people, asset-based welfare strategies however need to be reconsidered.

This chapter investigates housing wealth holdings of elderly homeowners with divorce experience, relative to couples with an intact first marriage in the same age group. Different mechanisms that could result in lower housing wealth holdings for divorcees, are tested. Since the analysis is limited to homeowners, our results are partly driven by the selectivity of homeownership in different countries. Housing regimes and welfare regimes determine the selectivity of homeownership, and are tested as explanation of cross-country variations in the effect of a divorce on housing wealth holdings. The empirical work is based on the Survey of Health, Aging and Retirement in Europe (SHARE, wave 3 and 4, conducted in 2008/9 and 2011/2). This chapter solely focuses on individuals in later life (50+ at the moment of data collection), which enables us to grasp the long-term consequences of divorce.

This study adds to previous research in three ways. First, it investigates the housing wealth consequences of a divorce, rather than focusing on tenure transitions. Second, building on Dewilde and Stier (2014), a focus on the elderly enables us to investigate the long-term effects of disruptive life course events in different institutional contexts, and how these come about. Third, it studies housing wealth from an international-comparative perspective, whereas most authors focus on single countries.

Why divorce has a price tag: the micro-level

We expect that differences in housing transitions between divorcees and couples with an intact first marriage result in lower housing wealth holdings of elderly homeowners with divorce experience. Beer and Faulkner (2011) describe these housing transition as "a series of housing decisions about whether to move or not move, the quality and quantity of housing to occupy, location relative to employment and

social networks" (p. 31). We acknowledge that financial stress might trigger housing decisions and divorce, but it is far more common that housing decisions are the result of the post-divorce financial stress (Andersen, 2005). We envisage three housing wealth-reducing housing transitions for elderly divorcees who did not permanently move out of homeownership at the time of the survey. First of all, moves down the property ladder could reduce housing wealth holdings in a direct way. The strong effect of divorce on residential mobility implies that in many cases both partners move to another dwelling (Speare Jr. and Goldscheider, 1987). A reduced demand for space and a weakened financial position often leads to moves into a segment of the housing market with lower prices (Feijten and van Ham, 2010). Second, housing wealth holdings of divorced homeowners are likely to be temporary or permanently lower than those of married couples, even when the housing consumption does not decline after the divorce. A larger housing loan may be needed when the ex-partner takes out his/her share of the housing wealth. Third, temporary moves into rental housing after a divorce might reduce housing wealth holdings when house prices increase faster than incomes. In such a situation, it becomes relatively more expensive to buy a home with the same quality as the former marital home. Therefore, moves down the property ladder, or larger residential debts are expected to be more common among those with an episode in rental housing.

Hypothesis 1: Home-owning elderly with divorce experience have smaller housing wealth holdings than couples with an intact first marriage.

Especially women are economically vulnerable after a divorce (Uunk, 2004). Because of their lower labor market participation and weaker financial position, women have a larger chance than men to move into rental housing after a divorce. The financial position of women after a divorce is often worse than men because they re-partner less often and less quickly (Dewilde, 2008). We expect the effect of a divorce on the accumulation of housing wealth to be gendered as well. In this line of reasoning, lower female wages translate into smaller purchasing power on the housing market, and subsequently lower housing wealth holdings. There are however reasons to believe that women

with a sufficient income in certain situations have a large chance to remain in the marital home. In some countries it is common practice that the male partner keeps his pension wealth, whereas the female partner is entitled to the housing wealth (see Joseph and Rowlingson (2012) for the UK). Altogether however, we expect that the weaker financial position of women impacts negatively upon their housing wealth accumulation after a divorce.

Hypothesis 2: Home-owning elderly divorced women have smaller housing wealth holdings than home-owning elderly divorced men.

When re-partnering co-occurs with the establishment of a new shared household with a stable future perspective, possibilities for income pooling enable the couple to exercise more purchasing power on the housing market (Lersch and Vidal, 2014). In this way re-pooling (1) increases the likelihood of re-entering homeownership for those who dropped out of this tenure after the divorce, or (2) increases the likelihood of upward movements in the housing market for those who remained in homeownership after a divorce. This mechanism might be stronger in contexts in which economically independent women are considered as more attractive partners (de Graaf and Kalmijn, 2003), or somewhat weakened in contexts in which the lack of welfare support pushes women with a low socio-economic status into re-marriage (Dewilde, 2008). Empirical evidence shows that couples of which at least one of the partners has been married before display comparable housing transitions as couples with an intact first marriage (Beer and Faulkner, 2011; Feijten and van Ham, 2010).
Hypothesis 3: Home-owning elderly re-partnered men and women have comparable housing wealth holdings as couples with an intact first marriage.

Variation across Europe

The later-life housing wealth consequences of divorce are expected to vary between countries due to institutional differences in housing and welfare regimes. Furthermore, we expect the institutional effect to vary over time due to policy changes within these countries.

Divorce, housing wealth and welfare regimes

The welfare state influences to what extent especially women are able to remain in homeownership after experiencing partnership dissolution. Previous research stresses that divorced women have a larger chance of residing in homeownership in countries where the state fosters female employment (e.g. through extensive family policies and affordable and accessible childcare) (Dewilde and Stier, 2014). However, mechanisms that increase homeownership rates among the divorced, do not necessarily translate into larger housing wealth holdings. Where homeownership rates are higher, more divorcees have *some* housing wealth, whereas in countries with more socially selective models of homeownership, average housing wealth holdings among those divorcees that remained in homeownership can be expected to be larger. Controlling for the social selectivity of homeownership, we envisage two ways in which gendered welfare state policies affect the housing wealth holdings of divorced individuals. First of all, policies fostering the labor market participation of women might have a positive effect on the housing wealth accumulation of both men and women. Being active on the labor market increases the purchasing power on the housing market for divorced women. When divorced men re-partner, high female employment rates increase the chance of having dual incomes and dual earnings, which in turn gives them more purchasing power on the housing market. Being able to buy into more expensive housing, results in larger housing wealth holdings (if financed with an annuity mortgage). Second, legal arrangements between partners might impact upon the housing wealth accumulation of both former partners. Although all countries in our sample have no-fault divorce laws (González and Viitanen, 2009), Adema *et al.* (2009) show that the financial arrangements between two partners after a divorce differ between European countries. In more conservative welfare states with lower female employment rates, child maintenance payments, spousal support or alimony are much higher than in liberal or social-democratic welfare states. These payments can improve the financial position of women considerably, without damaging the financial position of the male partner to the degree that it has impact on his

housing situation. In countries where entering the labor market is troublesome for women, spousal support might be essential for women to remain in the former marital home.

Hypothesis 4: The negative effect of divorce experience on housing wealth holdings in later life is smaller in countries with a female-supportive welfare state.

Divorce, housing wealth and housing regimes

Housing regimes determine who are able to enter homeownership, at what price, and with which returns. Different institutional constellations might impact upon the three mechanisms that are conceptualized as mechanisms behind lower wealth holdings of divorcees (moving down the property ladder, temporary spells in rental housing, increasing mortgage debts). First of all, the size of the homeownership sector determines the possibilities for moving down the property ladder. In 'rental societies' with a more socially selective model of homeownership, like Germany and Switzerland, smaller and lower quality units can barely be found in the homeownership sector (Bourassa and Hoesli, 2010). In these countries it is likely that divorcees move out of homeownership altogether due to the restricted possibilities of moving down the property ladder within homeownership.

Temporary spells in rental housing, and even staying put in the marital home might be 'costly' when house prices outpace inflation and turnover rates on the housing market are high. Morrow-Jones and Wenning (2005) suggest that the "Inability to move upward between units, or the inability to move up *as other groups*, can reinforce existing social disparities" (p. 1740, italics added). In other words, the relative disadvantage of divorced individuals increases when divorcees who stay put in the marital home or move into rental housing temporarily, are unable to keep up with married couples that are able to move up within homeownership. This is likely to be the case in a subset of countries that combine moderate homeownership rates with a 'dynamic housing market' (e.g. the Netherlands), where it has become common to 'trade up' on the market for owner-occupied housing during the life course (van der Heijden *et al.*, 2011). In 'static

housing markets' turnover rates on the housing market are far lower and most households buy a dwelling for their entire life time (e.g. Germany and Italy).

Higher mortgage debts among individuals with divorce experience compared to those with an intact marriage are put forward as a mechanism behind their relatively disadvantaged position. The availability of mortgage finance shows large cross-country variation. More liberal housing finance systems take 'the waiting out of the wanting' by allowing individuals to loan a larger part of the value of the home (high loan-to-value ratio), and extending the amortization time. This reduces the necessity of (temporary) moves into rental housing or moves down the property ladder. However, the increased indebtedness decreases housing wealth holdings in a direct manner. Moreover, liberal housing finance systems are expected to strengthen the above-mentioned mechanisms. First of all, they allow a larger share of divorcees to remain in homeownership or to re-enter this tenure. Second, there is evidence that house price inflation and volatility (e.g. property booms and busts) have been more severe in countries with liberal housing finance systems (OECD, 2014) which increases the price of staying put in the marital home or temporary spells in rental housing.

Hypothesis 5: The negative effect of divorce experience on housing wealth holdings in later life is larger in countries with a larger (finance-led) expansion of homeownership.

Data and method

Data and sample

Our analysis is based on the third and fourth wave of the SHARE (2008-2009 / 2011-2012), an ex-ante harmonized longitudinal panel study, carried out in 13 European countries among the population aged 50 and over. The third wave of the SHARE contains retrospective life histories, including housing careers and family transitions. We enrich these data with information from wave 4 about housing wealth. The SHARE data are valuable for at least three reasons. First, they contain

comparative information on housing careers and housing wealth. Second, the national sample sizes are large. Third, the countries in the dataset cover a wide variety of continental welfare and housing regimes.

The analysis sample consists of elderly who *have ever been married* (or still are), and *reside in homeownership* at the moment of interview. Those who never married are not included because they have never been 'at risk of divorce'. A small number of respondents (3% of the total sample) that entered homeownership for the first time after a divorce, is included in the sample. In the first models, we present information on the entire sample, in which tenants are assumed to have zero housing wealth. The later analyses are based on a sample of homeowners only, since the institutional mechanisms that impact upon tenure status and housing wealth are conceptually different. By including tenants in the analysis, these mechanisms would remain hidden. Furthermore, the moderating effect of institutions on the relationship between divorce and moves out of homeownership, is widely researched by others (e.g. Dewilde, 2008 or Feijten, 2005). Only respondents belonging to the main sample of the SHARE are included. Others living in the household, like co-resident children or co-resident parents, are excluded because they are likely not entitled to the household's housing wealth. Furthermore, respondents born before 1920 are excluded because their number is too small to draw conclusions about cohort effects. The sample of countries is restricted to Austria, Germany, Sweden, the Netherlands, Spain, Italy, France, Denmark, Switzerland and Belgium. We exclude the Czech Republic and Poland, since the transition from communism to capitalism dramatically changed their housing and welfare regimes, and macro-level indicators about the period before 1990 are unavailable. Furthermore, we dropped Greece, because of the low incidence of divorce, and the unavailability of macro-level indicators for the period before 1990. Altogether, the analysis sample consists of 10 countries with 318 (Austria) to 1595 (Belgium) respondents. The number of respondents in Austria is disproportionally low because of the small initial sample and the large share of tenants (see Table 3.2).

Micro-level variables

Net housing wealth is our dependent variable. It is calculated as the value of the first dwelling and – when applicable – a second home, minus the value of all outstanding debts. The housing wealth estimate is derived from self-evaluation of the market value of the house at the moment of the interview (2011/2012). Previous studies have proven such subjective evaluation of housing wealth to be reliable (Ansell, 2014; Mulder *et al*., 2015). We use top coding at the 99.8 percent level to remove outliers in the housing wealth distribution per country. For reasons of international comparability, housing wealth holdings are calculated as a percentage of the national median. Both partners in a couple receive the total household's housing wealth, because it represents a shared resource. This causes caution in the interpretation of results because it could result in a difference between the observed and real total housing wealth before and after a divorce. When both partners buy dwellings half the price of the former marital home after a divorce, the housing wealth to be inherited by their children will remain equal, whereas it will be measured as a reduction.

The complex tangle of marital pathways is summarized in four categories, based on the result of the first marriage (still living together, divorced, widowed, not living together) and the current situation for those who entered a new partnership (still living together, divorced, widowed, not living together). The fifteen trajectories that follow from this evaluation (see Table 3.1) are summarized in four categories. The first category includes all respondents who are still in their first marriage. Widows who never re-partnered, and those with a partner in a nursing home are included in this category as well. Their housing wealth is expected to be accumulated by two partners. The second category includes all respondents whose first marriage ended in divorce and who are currently single. The third category contains all respondents whose first marriage ended in divorce and who are currently cohabiting with a new partner. We do not differentiate between re-partnering and re-marrying due to the small number of cases. Widow(er)s of new partners, and those who are living alone because the new partner moved to a nursing home are placed in this category as well because the housing wealth is likely to be accumulated

by the couple. The fourth category consists of respondents that are not living together due to unknown reasons, and re-partnered widow(er) s. In the remainder, we do not comment on the results of this category, because they fall outside the scope of this research.

Table 3.1. Classification of marital pathways

Situation first partner	Current state	Men	Women	Total	Classification
Living with first partner	"	3,951	3,955	7,906	Intact first marriage
Widowed	"	203	798	1,001	Intact first marriage
First partner in care center	"	3	2	5	Intact first marriage
Not together due to unknown	"	12	13	25	Other trajectory
Divorced	Not repartnered	174	258	432	Divorced and single
Divorced	Repartnered	437	350	787	Divorced and repartnered
Divorced and remarried	Widowed	19	77	96	Divorced and repartnered
Divorced and remarried	Partner in care center	1	1	2	Divorced and repartnered
Divorced and remarried	Not together due to unknown	4	10	14	Other trajectory
Widowed	Widowed again	8	22	30	Other trajectory
Widowed	Repartnered	96	82	178	Other trajectory
Widowed	Not together due to unknown	0	1	1	Other trajectory
Not together due to unknown	Widowed	0	2	2	Other trajectory
Not together due to unknown	Partner in care center	1	5	6	Other trajectory
Not together due to unknown	Not together due to unknown	1	4	5	Other trajectory
Total		4910	5580	10490	

Three mechanisms behind a negative effect of divorce experience on the housing wealth accumulation of the elderly, can be tested directly. First, the effect of downward moves on the property ladder is measured by a variable indicating (1) whether someone lives in a house (free-standing house) or an apartment (row house/ small flat, large flat, housing for elderly), and (2) how many rooms the house has. Together, both variables give an indication of the housing quality. A reduction of housing quality as a mechanism

of a reduction of housing wealth is less straightforward than it seems. If a divorce occurs when house prices are higher than at the moment of purchase, it is harder for the leaving partner to find a home with a comparable quality for his share in the marital home. In that situation he/she can sacrifice space or opt for a less attractive location. Second, the effect of episodes in rental housing is measured by a variable indicating how many times someone has moved within the rental sector, after the first-time entry into homeownership. Third, the effect of increased indebtedness is measured by a variable indicating which percentage of the housing value is covered by a residential loan.

Re-partnering is hypothesized to mitigate the negative effect of divorce experience on the accumulation of housing wealth among the elderly. It is measured in terms of the above-mentioned marital trajectories (see Table 3.1). We use the following micro-level variables to control for factors that are expected to influence the odds of experiencing a divorce, or the housing wealth accumulation process: age of first marriage, age of entering homeownership, residing in rental housing five years after the first marriage, number of children, migrant status, having received a financial gift from a family member (5000 Euro or more), the urbanity of surroundings (rural-small town/large town-big city), highest achieved educational level (ISCED-scores: no education /primary education/lower secondary education/higher secondary education/post-secondary education/tertiary education), income (lower than median/higher than median/higher than two times the median).

Macro variables

Macro-level indicators are measured on the country-period level, since the context within one country changes over time. Macro-level variables are assigned to individuals on the basis of country and moment of divorce. We distinguish between respondents who divorced before 1985, and respondents who divorced after 1985. Since the middle of the 1980s, the liberalization of the economy in general and the housing market in particular, changed the context in which the divorce took place. Furthermore, both groups have an almost

equal size. To assign macro-variables to non-divorcees, we use the 'most likely year in which a divorce would take place'. We calculate the average duration of a marriage before divorce in every country, and add this to the year of marriage. This is the context in which both divorcees and non-divorcees make the decision to divorce or not. Six macro variables, describing the welfare- and housing regime context at the moment of a (non-)divorce are taken into account.

Two sets of macro-level indicators are ought to capture the cross-country variation in welfare regimes and housing regimes. The welfare state context is measured by the female employment rate and the generosity of child maintenance payments. For respondents who divorced before 1985, we use the average female employment rate of the 1980s, for those who divorced after 1985, we use the average female employment rate of the 2000s (Olivetti, 2014). The indicator for the generosity of child maintenance payments is measured as the relative importance of child maintenance payments in the income of divorced women, and based on information from the Luxemburg Income Study (LIS) in the year 2000 (Adema *et al*., 2009). The indicator is not available for Spain, Italy and the Netherlands.

The housing regime is operationalized by the homeownership rate, the turnover rate on the housing market and an index of housing finance liberalization. For the respondents who divorced before 1985, we use the homeownership rate of 1980, or the earliest observation available. For respondents who divorced after 1985, we used information from 2000 (in the case of Germany information from 2004) (Atterhög and Song, 2009; Dol and Haffner, 2010). The turnover rate on the housing market is based on an estimate from the SHARE, indicating the average number of homes the current sample has owned during the life course. The accessibility of housing finance is measured with an index of financialization, constructed by the IMF (2008). The index evaluates national mortgage systems on the possibilities for mortgage equity withdrawal, possibilities for refinancing, loan-to-value ratios, and information on the market for covered bonds and mortgage backed securities. Unfortunately, this index is not available for Switzerland. An overview of all macro-variables is given in Table 3.2.

Table 3.2. Overview of macro-level indicators

Country	Female employment rate (%)		Child maintenance payments in 2000	Home-ownership rate (%)		Turnover rate	Index mortgage market liberalizations
	1980	2000		1980	2000		
Austria	51,2%	67,5%	18,3	52%	52%	1,2	0,31
Belgium	36,4%	46,5%	14	59%	68%	1,9	0,34
Denmark	60,5%	60,9%	9,4	56%	59%	2,3	0,82
France	43,9%	50,6%	16,2	47%	55%	1,6	0,23
Germany	41,5%	51,8%	17,1	39%	46%	1,2	0,28
Italy	35,0%	37,9%	x	59%	71%	1,2	0,26
Netherlands	36,8%	58,4%	x	42%	53%	1,9	0,71
Spain	28,6%	48,3%	x	73%	84%	1,3	0,4
Sweden	70,0%	59,7%	11,1	58%	53%	2,1	0,66
Switzerland	51,4%	75,6%	49,7	30%	44%	1,3	x

Source: Atterhög and Song, 2009; Dewilde and Stier, 2014; Dol and Haffner, 2010; Gwartney et al., 2013; OECD, 2015b; Scruggs et al., 2014.

Methods

For setting the scene, descriptive analyses are presented. First, homeownership rates among three marital categories (always married, divorced and single, divorced and re-partnered) are shown. Second, average housing wealth holdings (as percentage of the national median) are displayed for all three marital groups, to show international variations in the consequences of divorce experience in later life. We proceed with two country-fixed effects analyses (using OLS regression), focusing on the individual-level mechanisms behind housing wealth inequalities, controlling for all unobserved heterogeneity on the macro- level (Möhring, 2012). Robust standard errors are used to allow residuals to vary in a non-random way due to the structured nature of the data. One analysis investigates whether men and women in two divorce cohorts (before and after 1985) display a different effect of divorce experience on the accumulation of housing wealth in later life. This analysis is replaced on two samples: one based on homeowners only, and one based on homeowners and tenants. This puts analyses on the effect of divorce experience on the accumulation of housing wealth among home-owning elderly in perspective, because it shows the effect of being excluded from accumulation housing wealth at all. Another analysis tests to what extent lower housing wealth holdings among ever-divorced

homeowners in later life are the result of moves down the property ladder, temporary residence in rental housing or increased indebtedness. These three mechanisms are not included in the final model, in which cross-level interactions between institutional characteristics and marital categories are presented. Indeed, we assume that these institutional factors are the driving forces behind the three mechanisms associated with lower housing wealth holdings of divorcees, compared to those in an intact first marriage. We run all models for men and women separately. Main effects of macro-level variables cannot be added in such a country fixed-effect model, because country-level variations are captured by the model itself.

Results

Setting the scene

A descriptive image of the data (Table 3.3) confirms that individuals with divorce experience have a smaller chance of residing in homeownership (Dewilde, 2008; Dewilde and Stier, 2014; Feijten and van Ham, 2010). In general, the opportunities for divorcees to live in homeownership are reflected by the well-known pattern of high homeownership rates in the Mediterranean homeownership societies (80%-90%), low homeownership rates in the German-speaking rental societies (60%-70%), and moderate homeownership rates in the rest of continental Europe and Scandinavia (70%-80%). Exceptions are Italy, Denmark, Belgium and the Netherlands, where divorcees have a far smaller chance of residing in homeownership than can be expected on the basis of the homeownership rate among those with an intact first marriage.

Table 3.3. Homeownership rate (in %) and housing wealth (as % of the national median) of people following different marital trajectories in ten countries

country	Marital trajectory	Homeownership rate			N	Housing wealth			N
		Lower bound	Mean	Higher bound		Lower bound	Mean	Higher bound	
Austria	Always married	63%	64%	70%	416	107	114	120	263
	Divorced with partner	34%	48%	63%	34	84	97	110	17
	Divorced without partner	32%	44%	57%	45	54	72	90	20
	Other trajectory	60%	75%	91%	23	73	99	125	15
Germany	Always married	66%	69%	71%	1036	126	132	138	717
	Divorced with partner	52%	59%	66%	136	96	114	132	81
	Divorced without partner	29%	40%	50%	67	74	104	133	25
	Other trajectory	42%	55%	69%	39	80	122	164	21
Sweden	Always married	79%	81%	83%	866	144	153	162	707
	Divorced with partner	68%	73%	79%	197	136	153	170	151
	Divorced without partner	57%	65%	73%	94	86	115	144	62
	Other trajectory	74%	83%	93%	44	95	119	144	37
Netherlands	Always married	69%	71%	73%	1224	119	123	128	867
	Divorced with partner	70%	77%	84%	103	80	92	103	77
	Divorced without partner	38%	46%	55%	94	65	83	101	44
	Other trajectory	57%	69%	81%	45	103	123	144	29
Spain	Always married	93%	94%	95%	1257	128	134	139	1141
	Divorced with partner	93%	98%	104%	17	96	146	196	16
	Divorced without partner	69%	84%	99%	17	72	132	193	14
	Other trajectory	69%	85%	101%	14	86	123	160	12
Italy	Always married	84%	85%	87%	1715	128	133	137	1482
	Divorced with partner	66%	76%	86%	48	96	115	135	38
	Divorced without partner	26%	42%	58%	27	57	98	139	10
	Other trajectory	60%	75%	89%	26	107	140	173	21

Table 3.3. Continued

country	Marital trajectory	Homeownership rate			N	Housing wealth			N
		Lower bound	Mean	Higher bound		Lower bound	Mean	Higher bound	
France	Always married	85%	87%	88%	1271	123	127	132	1052
	Divorced with partner	74%	80%	85%	168	114	127	139	122
	Divorced without partner	62%	68%	74%	148	97	109	122	98
	Other trajectory	59%	70%	81%	45	114	136	158	32
Denmark	Always married	81%	83%	84%	1080	142	150	157	883
	Divorced with partner	72%	77%	81%	236	115	132	149	178
	Divorced without partner	42%	49%	57%	127	73	106	138	61
	Other trajectory	67%	77%	86%	53	79	113	148	40
Switzerland	Always married	64%	67%	70%	719	139	149	159	470
	Divorced with partner	55%	63%	72%	92	106	136	165	57
	Divorced without partner	27%	35%	43%	98	89	134	180	35
	Other trajectory	27%	42%	56%	34	58	104	150	12
Belgium	Always married	86%	87%	89%	1553	118	121	124	1331
	Divorced with partner	71%	76%	81%	194	104	114	125	148
	Divorced without partner	45%	52%	59%	136	95	110	125	69
	Other trajectory	59%	69%	78%	62	110	132	154	42

Source: SHARELIFE, own computations. Confidence intervals are based on p<0.05.

More importantly, the descriptive statistics show that divorce has negative effects *beyond* tenure. In nearly all countries, single homeowners with divorce experience have significantly lower housing wealth holdings than those with an intact first marriage (largest differences can be found in Denmark, Austria and the Netherlands). Divorced and re-partnered individuals take in general a middle position, but differences with individuals with an intact marriage are in many countries non-significant.

We present eight country-fixed effects analyses to (a) check whether the results of the descriptive analyses hold while controlling for co-variates, (b) account for the role of permanent moves out of homeownership, and (c) investigate how the effect of divorce on housing wealth holdings changes over time (Table 3.4). We present models for two genders (male/female), two divorce cohorts (before and after 1985), replicated them on two samples (entire sample versus homeowners only). First, nearly all models in Table 3.4 show a strong and significant negative effect of divorce experience on housing wealth accumulation. This effect is stronger for single divorcees than for re-partnered divorcees, and stronger for women than for men. In conclusion, the findings from the descriptive analyses are fairly robust while controlling for many co-variates. Second, a comparison of the first four models (based on the entire sample) and the last four models (based on a sample of homeowners only), shows that the negative effect of divorce experience on housing wealth accumulation is much stronger when drop-outs out of homeownership (resulting in zero housing wealth) are taken up. For example, while taking into account the entire sample with homeowners and tenants, women who divorced before 1985, have 83 percent lower housing wealth holdings than women with an intact first marriage. A comparison with the same group of women in the sample with homeowners only shows that this is for a large share the result of permanent moves out of homeownership (resulting in zero housing wealth). Single divorcees (women, divorced before 1985) in the sample with homeowners only have nevertheless 38 percent smaller housing wealth holdings than women with an intact first marriage. Interestingly, for those who divorced before 1985 and re-partnered later on, a significant negative

effect on housing wealth holdings can be found while analyzing the entire sample, whereas no significant effect can be found in the analysis based on the sample with homeowners only. This means that the entire negative effect is due to moves out of homeownership, or in other words: *if* they remained in homeownership or regained access to this tenure, they fared comparably well as their peers with an intact first marriage. Third, a comparison of the regression coefficients for both divorce cohorts shows that the negative effect of divorce on housing wealth strengthened over time for men, but weakened for women. Whereas the negative divorce effect for single men who divorced before 1985 is solely the result of moves out of homeownership, single divorced homeowners who divorced after 1985 show 30 percent lower housing wealth holdings than those with an intact first marriage (compare Model 1/5 and 6). A comparison of model 7 and 8 shows that women who remain in homeownership or regain access to this tenure experience a negative divorce effect in both divorce cohorts, but that this effect becomes slightly weaker (from -38% to -36%). For both re-partnered men and women, the negative effect of divorce on housing wealth holdings increased. These findings match previous research that indicates that the economic position of divorced women has increased due to higher female employment rates, whereas the position of divorced men has declined, as one income is no longer enough to afford homeownership (DiPrete and McManus, 2000).

Explaining the housing wealth effect: the micro-level

The first model in Tables 3.5 and 3.6 presents the effect of different marital categories (couples with an intact first marriage as reference category) on the accumulation of housing wealth for men and women separately, controlling for a variety of individual characteristics. The analyses are based on a sample with homeowners only, since the mechanisms that we test are conceptualized to reduce housing wealth, but not necessarily to lead to moves out of homeownership. Not surprisingly, the results are similar to the results of Table 3.4, in which the same variables are used to investigate the difference between an earlier and a later 'divorce cohort'. Model 1 in Table 3.5 shows that single, elderly, home-owning men with divorce experience

Table 3.4. Country-fixed effects analysis, presenting the effect of divorce on housing wealth holdings for two divorce cohorts, men and women separately

	Sample: tenants and homeowners				Sample: homeowners only			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
	Men		Women		Men		Women	
	Before 1985	After 1985	Before 1985	After 1985	Before 1985	After 1985	Before 1985	After 1985
Marital category								
Intact first marriage (ref.)	-	-	-	-	-	-	-	-
Divorced and single	-64,546***	-68,404***	-83,076***	-84,242***	-23.07	-29.567***	-38.357***	-36.059***
Divorced and re-partnered	-17,804*	-35,833***	-26,444***	-47,862***	-9.927	-19.936***	-9.559	-30.979***
Non-standard trajectory	-21,566*	-57,687***	-29,666***	-12,606	-11.235	-27.657	-11.622	4.518
Age of first marriage	3,100***	-0,345	3,081***	1,024*	1.344**	-0.427	2.296***	0.733*
Number of children	-0,689	2,105	-3,264*	5,500**	0.586	0.611	-1.519	4.197*
Urbanity	-4,294	-6,881	-4,874	-7,344	17.629***	13.289**	10.263**	6.978
Received gift (5000E)	52,890***	26,595***	41,278***	41,924***	34.964***	15.858**	27.804***	27.697***
Migrant status	-24,801**	-15,377	-9,078	-14,177	-2.833	4.872	-2.969	14.054
Educational level								
Pre-primary (ref.)	-	-	-	-	-	-	-	-
Primary education	21,181**	27,236***	24,170***	32,088***	23.229***	24.521**	22.394***	29.000***
Lower secondary	32,757***	57,421***	53,407***	61,456***	33.080***	51.668***	43.862***	59.922***
(Upper) secondary	42,268***	59,902***	62,609***	82,737***	42.056***	52.961***	51.035***	68.243***
Post-secondary	84,035***	95,564***	82,490***	152,034***	53.923***	80.322***	52.226***	122.973***
First stage tertiary	97,380***	123,624***	120,206***	130,679***	80.559***	97.103***	89.733***	100.768***
Birth cohort								
Before 1930 (ref.)	-	-	-	-	-	-	-	-
1930-1939	31,520***	-50,673	12,138**	18,002	12.693**	-46.467	-3.685	-9.452
1940-1949	45,605***	-36,022	41,163***	35,59	9.325	-46.043	7.438	11.255
1950 and later	5,234	-47,287	35,013**	21,606	-10.924	-58.378	-6.628	-3.152

Table 3.4. Continued

	Sample: tenants and homeowners				Sample: homeowners only			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
	Men		Women		Men		Women	
	Before 1985	After 1985	Before 1985	After 1985	Before 1985	After 1985	Before 1985	After 1985
Income								
Lower than median (ref.)	-	-	-	-	-	-	-	-
Higher than median	2,016	11,078*	-11,428**	2,226	0.666	2.652	-2.587	2.042
Higher than two * median	70,711***	47,740***	34,405**	28,572***	44.149***	27.132***	17.285	17.593**
Country dummies								
Austria (ref.)	-	-	-	-	-	-	-	-
Germany	12,081	-22,174	26,667**	-2,467	5.417	-12.494	14.533	-12.611
Sweden	48,237***	37.353*	50,855***	15,181	43.547***	45.598***	43.088***	18.707
Netherlands	-29,680**	-37,469**	1,805	-26,914*	-2.689	-14.984	14.253*	-17.095*
Spain	5,187	-7,909	55,872***	6,839	16.55	37.065***	37.404***	40.823***
Italy	14,331	-9,375	36,320***	-8,638	34.589***	33.194***	40.603***	27.846***
France	7,633	-25,972	26,404***	-33,156**	27.529***	18.514*	30.289***	-0.988
Denmark	15,485	-2,107	31,679***	-8,889	26.236***	27.890**	35.330***	11.512
Switzerland	33,445	23,12	49,049***	25,59	32.052**	17.595	38.441***	22.197
Belgium	-27,246**	-52,756***	-6,988	-45,133***	5.434	2.937	11.223	1.868
constant	-28,654	129,275**	-35,409	21,89	9.206	108.059**	-0.861	23.535
R-square	0,139	0,137	0,116	0,138	0.12	0.109	0.094	0.102
Degrees of freedom	2797	2777	3937	2956	2279	2285	2892	2386
BIC	36250,5	35829,7	50551,2	38175,6	27844.5	28087.4	35289.7	29453.5

* p<,1, ** p<,05, *** p<,01

Note: BIC: Bayesian Information Criteria. Ref: Reference category. Source: SHARE (2008/2011).

have 26,5 percent less housing wealth then men in an intact first marriage, whereas re-partnered elderly home-owning men have 13,4 percent less housing wealth than men in an intact first marriage. Model 1 in Table 3.6 shows that the association between divorce experience and reduced housing wealth in later life is stronger for women. Single elderly home-owning women have 37,6 percent less housing wealth than their counterparts in an intact first marriage, whereas those who re-partnered have 17,8 percent less housing wealth than women in an intact first marriage. The control variables in the model show the expected results. Higher educational and income levels, a more urban environment, large financial gifts, a higher marital age and a lower number of children, are correlated with larger housing wealth holdings. Altogether, Model 1 in Tables 3.5 and 3.6 provides evidence for the first three hypotheses. First of all, it shows that elderly homeowners with divorce experience have lower housing wealth holdings than elderly homeowners in an intact first marriage. Second, it provides evidence for the hypothesis that housing wealth holdings of women with divorce experience are lower than those of men. Finally, the higher housing wealth holdings of re-partnered divorcees relative to single divorcees show that re-partnering partly mitigates the negative effect of divorce experience on the accumulation of housing wealth over the life course.

Two mechanisms behind the lower housing wealth holdings of elderly homeowners with divorce experience stand out: downward moves on the property ladder, and the increased usage of mortgage finance. The second model in Tables 3.5 and 3.6 shows that temporary spells in rental housing after the first-time entry into homeownership are associated with lower housing wealth holdings for elderly, divorced, home-owning women (only significant at the 0,10 level), but not for men. However, this effect becomes non-significant in Model 3, after the addition of variables describing the housing quality. In other words: women who have resided in rental housing after a divorce have lower housing wealth holdings than those who did not, especially because they moved into smaller properties when they re-entered homeownership. A substantial part of the lower housing wealth holdings among divorced elderly homeowners can be explained by

downward moves on the property ladder, which can be concluded from a comparison of Model 2 and 3 (see Table 3.5 for men, Table 3.6 for women). Model 3 shows that living in an apartment rather than a house, and living in a home with fewer rooms, is associated with lower housing wealth holdings. The lower coefficients of the different marital categories in Model 3 compared to Model 2, imply that elderly men and women with divorce experience are over-represented in smaller apartments. For men, the effect of being divorced and single on housing wealth holdings in later life declines from -25,3 percent (Model 2) to -19,2 percent (Model 3) after the addition of variables that describe the dwelling type and size. For women, the effect of being divorced and single declines from -36,2 percent (Model 2) to -22,0 percent (Model 3) after the addition of variables that describe the dwelling type and size. Model 5 (Tables 3 and 4) confirms that elderly homeowners who have relatively larger mortgage, have lower housing wealth holdings than those who are outright owners. The lower coefficients of the divorced elderly in Model 4 compared to Model 3, imply that elderly men and women with divorce experience have larger residential debts than those in an intact first marriage. This finding provides evidence for the idea that housing wealth holdings of elderly divorced homeowners are lower due to their larger indebtedness. Even after the introduction of three mechanisms that might reduce housing wealth holdings in model 2, 3 and 4, a fairly strong negative association between divorce experience and lower housing wealth holdings in later life remains in place. Local house price developments are expected to explain another share of the variation, but could not be measured in our analysis.

Table 3.5. Country-fixed effects analysis, presenting the effect of marital trajectories on housing wealth holdings for men

	Model 1	Model 2	Model 3	Model 4
Marital category				
Intact first marriage (ref.)	-	-	-	-
Divorced and single	-26,514***	-25,256***	-19,192***	-16,239***
Divorced and re-partnered	-13,414***	-10,756**	-8,226*	-4,65
Non-standard trajectory	-14,062	-13,036	-10,857	-7,13
Age of first marriage	0,121	0,141	-0,25	-0,167
Age entering homeownership	-0,361	-0,443	-0,204	-0,15
Homeownership 5 years after marriage	-5,719	-6,184	-6,602	-5,399
Number of children	0,585	0,674	-2,570**	-1,882*
Urbanity	15,711*	15,929*	28,057***	26,164***
Received gift (5000E)	22,061**	22,126**	18,323**	15,690**
Migrant status	2,009	2,409	6,41	4,894
Educational level				
Pre-primary (ref.)	-	-	-	-
Primary education	27,204***	27,387***	29,664***	27,683***
Lower secondary	46,989***	47,040***	48,429***	45,513***
(Upper) secondary	50,311***	50,402***	50,892***	49,841***
Post-secondary	71,617***	71,786***	74,517***	77,659***
First stage tertiary	92,251***	92,683***	86,210***	86,070***
Birth cohort				
Before 1930	-	-	-	-
1930-1939	8,173	8,264	5,909	8,7
1940-1949	4,15	3,866	2,228	10,246
1950 and later	-9,791	-9,998	-12,845	1,175
Income				
Lower than median (ref.)	-	-	-	-
Higher than median	1,675	1,947	1,897	3,71
Higher than two * median	33,760***	33,979***	31,342**	33,406***
Time-out in rental housing		-4,423	-2,458	-0,086
Dwelling type			-29,044***	-26,926***
Number of rooms			9,751***	9,375***
Mortgage debt				
No (ref.)				-
Low				-4,382
High				-80,374***
constant	73,362***	76,141***	51,454***	50,032***
R-square	0,10	0,10	0,14	0,19
Degrees of freedom	9	9	9	9
BIC	55572,7	55567,1	54020,4	53763,3
* p<.1, ** p<.05, ***, p<.01				

Note: BIC: Bayesian Information Criteria. Ref: Reference category. Source: SHARE (2008/2011), own calculations.

Table 3.6. Country-fixed effects analysis, presenting the effect of marital trajectories on housing wealth holdings for women

	Model 1	Model 2	Model 3	Model 4
Marital category				
Intact first marriage (ref.)			-	-
Divorced and single	-37,594***	-36,167***	-22,022***	-19,711***
Divorced and re-partnered	-17,838***	-14,869***	-10,933***	-7,947***
Non-standard trajectory	-6,836	-5,686	-2,758	-2,897
Age of first marriage	1,085***	1,126***	0,659**	0,708***
Age entering homeownership	-0,438**	-0,523**	-0,29	-0,196
Homeownership 5 years after marriage	0,601	0,116	1,17	1,979
Number of children	0,494	0,547	-2,859*	-1,887
Urbanity	9,318	9,475	21,030*	20,275*
Received gift (5000E)	27,358***	27,307***	24,958***	21,459***
Migrant status	3,233	3,268	1,944	1,559
Educational level				
Pre-primary (ref.)		-	-	-
Primary education	26,663**	26,221**	27,948**	27,270**
Lower secondary	53,423***	52,817***	51,323***	48,996***
(Upper) secondary	60,401***	60,025***	56,732***	55,381***
Post-secondary	87,659***	86,746***	83,100***	85,534***
First stage tertiary	95,724***	95,303***	87,005***	85,928***
Birth cohort				
Before 1930				
1930-1939	-7,69	-7,722	-8,135	-6,157
1940-1949	3,552	3,281	0,51	6,459
1950 and later	-10,778	-11,358	-15,182*	-2,555
Income				
Lower than median (ref.)		-	-	-
Higher than median	-0,531	-0,444	0,022	2,053
Higher than two * median	16,905	17,068	12,577	14,31
Time-out in rental housing		-3,981**	-2,141	-1,139
Dwelling type			-22,178***	-21,478***
Number of rooms			12,852***	12,791***
Mortgage debt				
No (ref.)				-
Low				-3,166
High				-77,221***
constant	59,762***	63,008***	25,502**	22,668**
R-squared	0,08	0,08	0,13	0,17
Degrees of freedom	9	9	9	9
BIC	64386,9	64380,5	61430,8	61169,2
* p<.1, ** p<.05, ***, p<.01				

Note: BIC: Bayesian Information Criteria. Ref: Reference category. Source: SHARE (2008/2011).

Explaining the housing wealth effect: the macro-level

The effect of divorce experience on the accumulation of housing wealth in later life shows considerable cross-country variations, as can be concluded from the significant country dummies in the country-fixed effects model (see Table 3.4) and the cross-country differences in average housing wealth holdings of elderly home-owning divorcees (see Table 3.3). By including cross-level interactions between macro-level indicators and the marital trajectories to the previously presented country-fixed effects model, we investigate the influence of different institutional characteristics on the housing wealth holdings of single- and re-partnered divorcees. We take into account homeowners only, since institutional mechanisms that increase housing wealth holdings are conceptually different from those that foster moves into homeownership.

The first two cross-level interactions presented in Table 3.7 describe the welfare state context. The second cross-level interaction in Table 3.7 provides evidence that more generous systems of spousal child maintenance payments/ alimony mitigate the negative effect of divorce experience on the accumulation of housing wealth for both single and re-partnered divorced women. Spousal child maintenance payments are relatively high in conservative welfare states with low female labor market participation. In these countries, spousal payments are essential to remain in the former marital home. The first cross-level interaction presented in Table 3.7 shows that the association between divorce experience and housing wealth holdings in later life does not vary across countries on the basis of their female employment rates. This result is remarkable, since previous research shows that higher female employment rates increase the odds of residing in homeownership for divorced women (Dewilde, 2008). In other words, the selection into homeownership is driven by different institutional factors than the accumulation of housing wealth. We suggest that it is indeed easier for previously non-working women to start working after a divorce in countries with higher female employment rates. It is however also likely that the incomes of the new entrants of the labor market are not sufficient for the accumulation of large housing wealth holdings. Spousal child maintenance payments

might be the crucial factor in determining whether someone is able to stay in the marital home. The first two cross-level interactions provide weak evidence for Hypothesis 4, stating that a more female-oriented welfare state mitigates the negative effect of divorce experience on the accumulation of housing wealth.

The last three cross-level interactions presented in Table 3.7 describe the housing regime context. Altogether, the image arises that it is not the proliferation of homeownership in itself, but certain proliferation strategies that reinforce or mitigate the housing wealth consequences of a divorce. The third cross-level interaction in Table 5 shows that the result of an overall measure of the proliferation of homeownership, namely the homeownership rate in a country, is not significant. This confirms the image of the descriptive analyses (see Table 3.3) that showed that homeownership rates do not necessarily reflect the selectivity of this tenure for divorcees. For example, in Italy, a country with high overall homeownership rates, relatively many divorcees drop out of this tenure, and those who remain in homeownership have considerably lower housing wealth holding. In Sweden, a country with moderate homeownership rates, divorcees have a relatively large chance to remain in this tenure and those who remain do not have considerably lower housing wealth holdings. The fourth and the fifth cross-level interaction provide evidence for Hypothesis 5, stating that it is a financialized expansion of homeownership that strengthens the negative effect of divorce experience on the accumulation of housing wealth. In such a housing regime, speculation with housing is more common and turnover rates are higher. The result suggest that it is harder for single women with divorce experience to keep up with couples in an intact first marriage in countries with higher turnover rates on the housing market. Moreover, the stronger negative effect for single divorced women shows that their housing transitions differ more from couples in an intact first marriage than those of single divorced men. Our results suggest that re-partnered male divorcees also have relatively lower housing wealth holdings in countries with higher turnover rates on the market for owned homes. For re-partnered elderly home-owning women, the interaction is not significant. The liberalization of housing

finance has a very strong effect on the accumulation of housing wealth for home-owning individuals with divorce experience (Table 3.7). In other words, the effect of divorce experience on the accumulation of housing wealth in later life is stronger in countries where it is easier to re-enter this tenure due to liberal mortgage finance and where it is easier to prolong indebtedness into later life. Housing finance liberalizations haves a stronger impact on single women than on men. This means that men (1) make less use of advanced mortgage finance to remain in homeownership or re-enter this tenure, or (2) that they are better able to amortize their debt during their life course after a divorce than women, who find themselves in general in a weaker economic position. Moreover, house price inflation and price volatility in countries with more liberal housing finance might increase the relative difference between elderly homeowners with and without divorce experience.

Table 3.7. Cross-level interactions between marital trajectories and institutional characteristics for men and women

Cross-level interaction	Men	Women
Female employment rate * Divorced and single	0,08	-0,38
Female employment rate * Divorced and re-partnered	-0,33	0,43
Generosity of maintenance payments * Divorced and single	0,16	1,63**
Generosity of maintenance payments * Divorced and re-partnered	0,28	-0,21*
Homeownership rate * Divorced and single	0,01	-0,1
Homeownership rate * Divorced and re-partnered	-0,04	-0,24
Turnover rate * Divorced and single	-9,66	-57,15***
Turnover rate * Divorced and re-partnered	-15,20**	6,25
Mortgage liberalization index * Divorced and single	-23,98**	-81,63**
Mortgage liberalization index * Divorced and re-partnered	-33,30***	-0,2

* p<,1, ** p<,05, *** p<,01

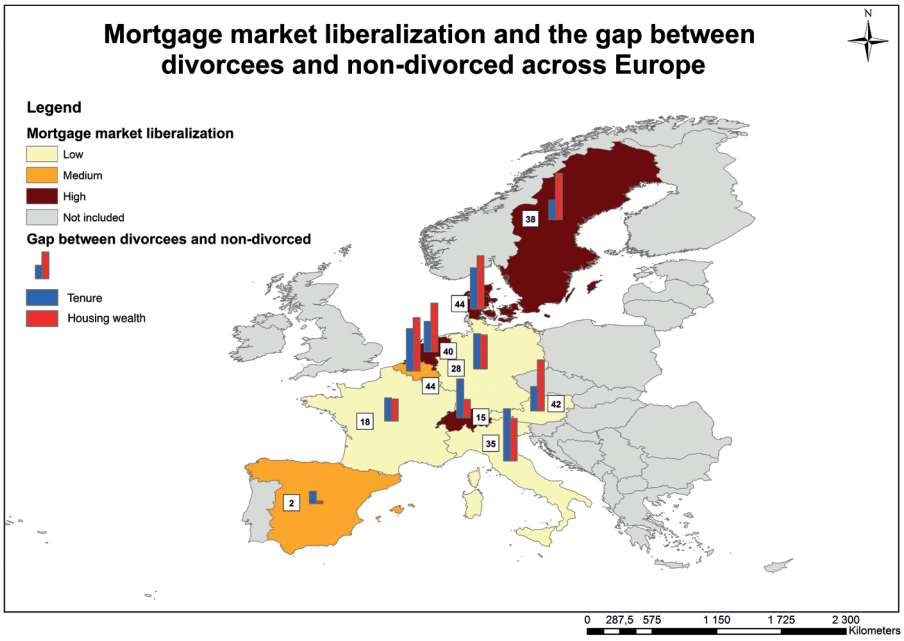
Note: the cross-level interactions are added to Model 1 in Table 3.6, controlling for age of first marriage, age of entering homeownership, homeownership within five years after marriage, number of children, urbanity of the surroundings, having received a large gift (5000 euro or more), migrant status, educational level, birth cohort and income. Source: SHARE (2008/2011).

Conclusion

After a divorce, it is common that one or both partners move to a new home. Previous research concluded that (especially female) divorcees have a larger likelihood of moving into the rental sector. This might damage their economic position, because it excludes them from a common means to wealth accumulation. Although a large majority of the divorcees stays in homeownership, or re-enters this tenure at a later moment in the life course (around 60%), it has never been researched how a divorce impacts on the housing wealth holdings of those who remain in homeownership or re-enter this tenure later on.

The results of our study suggest that housing wealth holdings of elderly homeowners with divorce experience are lower than of couples in an intact first marriage. Compared to previous research, we conclude that women do not only have smaller odds to live in homeownership (Dewilde 2008), but also have smaller housing wealth holdings than their male counterparts if they stay in homeownership. In line with DiPrete and McManus (2000) we conclude that the negative effect is strengthened over time for men, whereas it is weakened over time for women due to the latter's increased labour market participation and the increased nescessity of dual earnings for home purchases. Furthermore, the negative effect of divorce experience on the accumulation of housing wealth is found to be stronger for single elderly homeowners than for re-partnered elderly homeowners. In other words: re-partnering partly mitigates the housing wealth consequences of a divorce. Two mechanisms behind the lower housing wealth holdings of individuals with divorce experience stand out. First, elderly men and women with divorce experience live more often in smaller houses and apartments than couples in an intact first marriage. In other words: divorce is associated with downward moves on the property ladder. Second, elderly men and women with divorce experience have larger mortgages relative to the value of their home than couples in an intact first marriage. Increased indebtedness, or prolonged indebtedness into later life, is often the only way for divorcees to remain in homeownership, or to re-enter this tenure.

Figure 3.1. Map of the tenure and housing wealth gap between divorcees and first-time married couples



Note: For each country, the average percentage reduction of housing wealth for each country, is displayed on the map in a white square. Source: SHARE (2008/2011).

The negative association between divorce experience and housing wealth holdings of homeowners in later life is found in all 10 researched European countries. However, there is considerable cross-country variation in the size of this association on the basis of housing and welfare regime characteristics. Whereas previous research finds the odds of remaining in homeownership after a divorce to be linked to the welfare state regime (Dewilde and Stier 2014), we find that it is especially the housing regime that is able to reinforce or mitigate the effect of divorce experience on the accumulation of housing wealth in later life. We find evidence that the negative association between divorce experience and housing wealth holdings in later life is stronger in countries that facilitate re-entering homeownership after a divorce. These are not necessarily countries with high homeownership rates, but especially those with a liberal housing finance regime. Allowing increased indebtedness, and extended indebtedness into

later life, gives room for individuals with divorce experience to move down the property ladder within homeownership instead of permanently moving into rental housing. Furthermore, in 'dynamic housing markets' (those with liberal housing finance), trading up is more common among couples with an intact first marriage (van der Heijden et al. 2011). In these countries, divorcees are not able to trade up the housing market to the same extent as couples with an intact first marriage, which increases their relative disadvantage. One specific welfare state regulation is however found to mitigate the consequences of divorce experience on the accumulation of housing wealth in later life for single divorced women: generous spousal child maintenance payments. Especially in conservative welfare states, with low female employment rates, child maintenance payments are essential for women to remain in the former, owned, marital home.

The question under which institutional circumstances elderly with divorce experience are better off, is hard to answer because of two reasons. First of all, we would like to stress that our results underestimate the total effect of divorce experience on housing wealth, by solely focusing on those who are able to remain in homeownership or regain access to this tenure later on (since permanent moves into rental housing result in zero housing wealth). However, institutional mechanisms that impact upon the homeownership rate of individuals with divorce experience might be opposite to mechanisms that impact upon housing wealth holdings (e.g. in case higher housing wealth holdings among divorcees are the result of a more socially selective homeownership sector). Since relatively low housing wealth holdings might be preferable over no housing wealth holdings at all, the distributional effect of a divorce on the housing market can only be speculated upon while reflecting the findings with the propensity of moves out of homeownership. Second, a large difference in housing wealth holdings between elderly homeowners with and without divorce experience might hide a more equal distribution of net worth, a variable which we did not include. For instance, those who move out of homeownership permanently might exchange their housing wealth for financial wealth. However, previous research found housing wealth to be the prime source of

wealth for most households (Cowell *et al.*, 2012). Moreover, many couples divorce at a moment in the life course when they did not yet accumulate much housing wealth.

To conclude, divorce experience is associated with a lower likelihood of residing in homeownership in later life (Dewilde and Stier, 2014), but also with lower housing wealth holdings among those who remain in homeownership or re-enter this tenure again after a spell in rental housing. Differences between elderly with and without divorce experience are larger in countries that facilitate moves from rental housing into homeownership. To grasp in more detail in which way divorce experience affects the accumulation of housing wealth, future research needs to be directed to the interplay between housing wealth and financial wealth, and to the local housing market dynamics in which the housing transitions before and after the divorce take place.

CHAPTER 4

The Uneven Distribution of Capital Gains in Times of Socio-spatial Inequality: Evidence from Swedish Housing Pathways between 1995 and 2010

Abstract

Housing wealth is the largest source of wealth for a majority of Swedish households. Whereas investments in housing are merely defined by the income, the returns on this investment (capital gains) are dependent on local housing market dynamics. Since the 1990s, local housing market dynamics in Swedish cities are altered by the upswing in levels of socio-spatial inequality. The simultaneous up- and downgrading of neighborhoods is reflected in house price developments and exacerbates the magnitude of capital gains and losses. This chapter proposes that the selective redirection of housing pathways that causes an upswing in socio-spatial inequality, translates into an uneven distribution of capital gains as well. A sequence analysis of the housing pathways of one Swedish birth cohort (1970-1975), based on population-wide register data (GeoSweden), is used to explain differences in capital gains between different social groups in the period 1995-2010 (when they were aged between 20/25 and 35/40). The results indicate higher capital gains for individuals with higher incomes and lower gains for migrants. When socio-spatial inequality increases, the more resourceful groups can use their economic and cultural capital to navigate through the housing market in a more profitable way.

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Introduction

Wealth inequality, as a separate dimension of socio-economic stratification, has recently attracted much scholarly attention (Piketty, 2014). Although housing wealth is the largest source of wealth for the majority of households, only a few studies focus on the mechanisms that shape the accumulation of this form of wealth over the life course (Spilerman, 2000). Country studies only show that housing wealth is generally more equally distributed than financial wealth, but less than social security wealth or income (Appleyard and Rowlingson, 2010). Wind, Lersch, and Dewilde (2016) argue that housing wealth inequality among homeowners originates from three drivers: (1) the purchase price, (2) mortgage size and amortization, and (3) capital gains and losses. A comparison of 17 European countries shows that housing- and welfare policies influence to what extent housing wealth increases with social class, but due to its cross-sectional set-up, the role of the drivers of housing wealth inequality remains unclear.

The first two drivers of housing wealth implicate a clear link with the labor market, since high-income groups are likely to buy more expensive homes and have a higher propensity to amortize their mortgage. Capital gains and losses, on the other hand, are affected by housing market dynamics that distribute them unequally through time and space. Limited British and Australian evidence suggests that capital gains are more common among high-income groups (Burbidge, 1998; Hamnett, 1999). They "tend to move more frequently, and had moved upmarket in the 1980s", with higher returns on their investments as consequence (Hamnett, 1999, p. 101) Recently, Newman and Holupka (2015) found that capital losses in the US during the 2000s have been much more severe for blacks and lower-class individuals than for the middle class and white population. However, research evidence on how the housing market rather than the labor market function as a mechanism behind wealth inequality is scarce. In this chapter we contribute to existing literature by evaluating the selectivity of capital gains in Sweden during a period of increasing socio-economic segregation.

In times of increasing socio-spatial inequality, capital gains and losses can be expected to be more pronounced (see Stein, 1995 for an econometric perspective). The simultaneous up- and downgrading processes that constitute increasing socio-spatial inequality are matched by upward and downward price mobility in these neighborhoods (Ley *et al.*, 2002). In this chapter, we propose housing pathways that coincide with gentrification and downgrading processes as theoretical bridge between increasing levels of socio-spatial inequality and increasing levels of wealth inequality. Contrary to ´housing ladders´ or ´housing careers´ (Thorns, 1981), 'housing pathways' do not presuppose moves towards homeownership and higher-status neighborhoods, but allow for both upward and downward moves on the housing market at any moment during the life course (Clapham, 2002). They show how residential mobility alters the social balance in neighborhoods, and how the profitability of residential moves is affected by the in/out-migration of others (causing gentrification / downgrading). Like in most Western countries, redirected housing pathways have produced more polarized cities in the shift from an industrial to a post-industrial society as a result of globalization and welfare state restructuring (Sassen, 1991; Wacquant, 2007). In Sweden, this process is speeded up due to far-reaching liberalizations in the sphere of housing policy and housing finance since the 1990s (Andersson and Kährik, 2015). In addition, between 1995 and 2010 house prices have increased with 243% in the country as a whole, and more than tripled in Stockholm[2] (Ekonomifakta, 2016). This makes Sweden a particularly suitable case to capture the consequences of the trend towards financialization and marketization that is prevalent all across Europe.

In the current chapter, we analyse the distribution of capital gains across income-, educational and migrant groups. We explain differences regarding capital gains based on the housing pathways of these groups. Using longitudinal register data covering the entire Swedish population, we summarize the variation in housing pathways of a birth cohort born between 1970 and 1975, living in the large and medium-sized cities, during the period between 1995 and

2 Real estate price index for homeownership, adjusted for inflation.

2010. We make a threefold contribution to the debate on the causes and consequences of wealth inequality. First, we propose housing pathways as a theoretical bridge between the upswing in socio-spatial inequality and the surge in wealth inequality. Second, we provide evidence on capital gains and losses in an institutional context that has not been studied yet. Sweden has a stronger tradition of social policy and spatial planning than the Anglo-Saxon countries and experienced a different trajectory of deregulation. Third, our results are based on unique register data with wide coverage instead of small-scale surveys or aggregate statistics that are previously used to shed light on capital gains and losses.

Housing pathways: linking socio-spatial inequality and capital gains

Between 1995 and 2010, socio-spatial inequality in Swedish urban regions increased[3]. This development is part of a larger trend that got a major upswing during the severe economic recession that hit Sweden in the early 1990s (Andersson and Hedman, 2016). Areas that were hit worst by the economic crisis and subsequently downgraded were to a large extent already poor before whilst areas that suffered less tended to be better off previously (Andersson, 1998). Hedin *et al*. (2012) suggest that this trend is reinforced by a neo-liberal turn in Swedish housing policy. Since the 1990s, housing subsidies are reduced and shifted from the supply to the demand side, public housing has been sold, and housing finance has been deregulated (Holmqvist and Turner, 2014). This reshuffled, concentrated and enlarged the capital flow through the built environment.

The upswing of socio-spatial inequality took place all across the Western World, although its timing and drivers might differ from Sweden (Tammaru *et al*., 2015). Globalization, and the consequent polarization/professionalization of the labor market are mentioned as drivers of socio-spatial inequality (Friedmann, 1986; Sassen, 1991). Moreover, the turn from an industrial to a post-industrial economy has increased the importance of face-to-face encounters

3 D index in the Stockholm labour market region rose from 0.18 in 1995 to 0.21 in 2010. Similar developments were found in all of Sweden's ten largest labour market regions, see Hedman and Andersson (2015).

and centrality, which has boosted the demand for housing at central locations (Lees *et al.*, 2013; Ley *et al.*, 2002). Furthermore, the liberalization of (housing) finance has resulted in larger liquidity that could be invested in neighborhoods with low house prices in close proximity to neighborhoods with high prices (Guerrieri *et al.*, 2013; Smith, 1996). The parallel up- and downgrading of neighborhoods and increasing socio-spatial inequality are the result of (1) increasing levels of income inequality enlarging the existing differences between neighborhoods or (2) selective migration patterns of social groups. In the case of Sweden, it is likely to be a combination of both. The magnitude of capital gains and losses is dependent on the housing pathway: pathways through upgrading neighborhoods are expected to be more profitable. In the remainder, we focus on the selectivity of certain housing pathways, their contribution to the increasing levels of socio-spatial inequality in Sweden, and the implication for capital gains and losses.

Income polarization as driver of neighborhood change

Residential mobility often has a reproductive role in relation to the distribution of social classes over urban space. Rather than changing existing socio-spatial inequalities, mobility patterns stabilize existing patterns over time. On an individual level, however, preferences for housing tenures, housing types or neighborhood types might vary across the life course. Nevertheless most residential moves take place between areas with a comparable social status and ethnic composition due to structural constrains (other locations are unaffordable) and cognitive constrains (other locations are unknown or undesirable) (Sharkey, 2012). Although income increases are found to be associated with moves to more expensive housing in the US, this type of mobility confirms the social status of both the neighborhood of departure and arrival (Morrow-Jones and Wenning, 2005).

An increase in income inequality results in an upswing in socio-spatial inequality, if no residential moves occur, or if moves take place between areas with a comparable social status. Tammaru and colleagues (2015) argue that a decrease of income stability among the lower income strata and a decline in their relative position

as a consequence of welfare state restructuring, labor market deregulations and the shift towards a globalized post-industrial economy result in negative consequences for neighborhoods with an over-representation of these groups. At the same time, the strengthened position of the high-skilled service workers, followed by a subsequent increase in their bargaining power on the housing market, is a mechanism behind upgrading in neighborhoods where they are overrepresented.

As a result of the deregulation of production markets, abandonment of state monopolies, financial deregulation and a general cutback in welfare (Bergh and Erlingsson, 2009), income inequality rose faster in Sweden than in the rest of Europe (OECD, 2014). On the basis of evidence from Malmö between 1991 and 2010, Scarpa (2015) concludes that neighborhoods with an overrepresentation of low income groups showed signs of downgrading as a result of the worsened income position of their inhabitants (especially during periods of crisis) (Andersson and Hedman, 2016).

Selective mobility as driver of upgrading

The upgrading of neighborhoods is often portrayed as the result of the selective in- migration of young and high-educated residents, under the denominator of gentrification. The term describes "the transformation of a working-class or vacant area of the central city into middle-class residential and/or commercial use" (Lees *et al.*, 2013, p. XV). Whereas individuals with low economic but high cultural capital renovate run-down central apartments in the first wave of gentrification, the process becomes more speculative in later waves (Lees et al., 2013). Financial accounts of gentrification stress that the process is fueled by the existence of ´rent gaps´. Rent gaps arise in neighborhoods characterized by an under-investment in housing, but located in close proximity to locations with high house prices (Smith, 1996).

Swedish evidence reveals that gentrification processes in Sweden are fueled by changes in the housing regime. Since the 1990s, public housing companies have privatized part of their stock (Roger Andersson & Turner, 2014). Housing pathways that contribute to

gentrification often flow through properties that have been converted from regulated public rental housing to tenant-owned cooperative housing[4]. (Millard-Ball, 2002) points out that residential mobility in converted properties in Stockholm is much higher than in other segments of the housing market, due to the initial discount and the increasing popularity of these centrally-located properties. It has been argued that tenure conversion has speeded up gentrification due to an influx of younger, high-educated and more prosperous households in these properties (ibid).

A more market-based sorting of individuals over urban space is realized through the implementation of neo-liberal spatial planning practices. Developers are encouraged to build ´successful places´, where human capital can be housed. As a continuation of the former top-down, social-democratic modernist mode of spatial planning, local governments have invested in the creation of these ´pockets of richness´ (Baeten, 2012). The increasing role of the market in the sorting process has meant that the housing pathways of the poor are increasingly directed towards to the (downgrading) outskirts, whereas the housing pathways of the middle class concentrate in the (upgrading) central areas.

Selective mobility as driver of downgrading

Neighborhood downgrading is generally associated with the outmigration of middle class residents to avoid the negative externalities (e.g. criminality, low-quality public amenities and schools, stigmatization etc.) of being located in an area that is increasingly home to a low-SES or colored underclass (Wacquant, 2007; Wilson, 1987). In Sweden, the most distressed neighborhoods are increasingly characterized also by a high share of non-western immigrants (Andersson and Hedman, 2016). There is also evidence

4 Tenant-owned cooperative housing is a housing tenure in which the real estate is owned by all inhabitants jointly, but each tenant buys the use rights for one apartment. These rights are traded on the free market. Tenant-owned cooperatives most often consist of high-rise apartment blocks or one- or two-story row-houses. The price lev el for a share in a tenant-owned cooperative is generally below pure ownership but direct comparisons are difficult due to differences in housing type (ownership almost exclusively consist of land-bound single homes). Still, these shares are very costly, especially in attractive parts of larger cities.

showing that immigrants have a higher risk of remaining in these types of neighborhood (Tammaru *et al.* 2015). Ethnically selective housing pathways can to some extent be explained by differences in acquisition of different tenure forms. Although factors that are generally associated with moves into homeownership (marriage, child birth) are more present among the immigrant population (mainly of Finnish, Yugoslavian, Iraqi and Somali descent), they have a smaller chance than the native population to end up in homeownership, and if they do, they enter this tenure later in the life course due to a lack of financial resources (Abramsson *et al.*, 2002; Magnusson *et al.*, 2014). When they move into homeownership, they are also more likely to remain in or near immigrant-dense neighborhoods where house prices stagnate compared to majority white neighborhoods. Financial accounts of downgrading stress that investments are gradually drawn away from such neighborhoods when the housing stock ages and the affluent population moves out (Aalbers, 2011).

Housing pathways and capital gains

In the period between 1995 and 2010, socio-spatial inequality in Sweden has increased, partly due to selective migration processes. Conventional gentrification theories stress the economic possibility to act upon cultural preferences regarding housing (Lees *et al.*, 2013), resulting in a spatial clustering of high-educated high-income households. Others argue that new waves of gentrification are triggered by rent-seeking behavior of starters with high cultural capital and knowledge of the local housing market (Hochstenbach and Boterman, 2015). Contrary, the lack of economic capital prevents low-income households to move out of disadvantaged areas, making them 'stuck in place' (Sharkey, 2012). Housing pathways cover (1) *moves* between neighborhood types and housing tenures, and (2) *in-situ* upgrading and downgrading processes within the neighborhood of residence. The upswing in socio-spatial inequality can be expected to be caused by higher number of high-educated, high-income households moving into neighborhoods with a higher social status at the outset, which in turn are more likely subject to *in-situ* upgrading processes. Since house prices generally reflect up- and downgrading

processes (see Freeman, 2011 for a discussion on gentrification, house prices and displacement), capital gains and losses are expected to be unevenly distributed among social groups.

To sum up, individuals with an immigrant background or a low socio-economic status are increasingly 'trapped' in rental housing where no capital gains are made, or in ownership in downgrading neighborhoods. Natives and individuals with high socio-economic status are more likely to follow housing pathways characterized by moves into homeownership in upgrading neighborhoods. Hence, the latter groups are likely to represent the 'winners' on the housing market in terms of financial profit from their housing consumption. Based on this conclusion, we formulate two hypotheses:

Hypothesis 1: Capital gains on the Swedish housing market between 1995 and 2010 are unevenly distributed towards natives, higher-income and higher-educated individuals.

Hypothesis 2: The uneven distribution of capital gains across social groups can be explained by differences in their housing pathways regarding tenure, neighborhood composition at the moment of in-migration and the development of the neighborhood during the period of residence.

Data and method

Data and sample

Analyses are based on a sub-set of register data covering the entire Swedish population and the properties they have lived in between 1995 and 2010 (GeoSweden). The longitudinal annual data allows us to follow people´s occupational career, family life course and housing pathway through time. We focus on individuals born between 1970 and 1975, who resided with their parents or in rental housing in 1995 and resided ever-since in the three metropolitan areas (Stockholm, Gothenburg, Malmö) or in the ten next-largest cities (Uppsala, Västerås, Örebro, Linköping, Helsingborg, Jönköping, Norrköping, Lund, Umeå, Gävle). Per household, only one individual is selected

(at random). This cohort is the oldest of which we can follow the accumulation of housing wealth from the 'beginning' (in Sweden, moves into homeownership or cooperative housing are very rare). Our focus is on the larger cities, since these are the main arena of processes of gentrification and downgrading. In total, our sample consists of ca. 70.000 individuals.

Variables

The magnitude of capital gains and losses on the housing market is the dependent variable of our analysis. First, we calculate the magnitude of capital gains and losses for each spell in homeownership or cooperative housing. This is the difference between the house value at the moment of purchase and the house value at the moment of sale (or: the value in 2010), expressed as a percentage of the housing value at the beginning of the spell. For tenant-owned cooperatives, for which we have no data on individual apartments, capital gains are based on the value changes of the real estate as a whole. It should be noted that values are based on taxation values, rather than purchase prices. Taxation values are based on transaction prices for similar dwellings in the surroundings, and updated on a bi/tri-annual basis. We expect to capture the longer-term value development of the dwelling since the methodology of calculating taxation values is unchanged through the years. Since any bias is directed downward (due to delayed tax evaluations, our variable capital gains should be regarded as a conservative estimate. The total capital gain over the period between 1995 and 2010 is the sum of the capital gains realized in different spells, weighted by the spell length.

Income, education and migrant status are used to investigate the uneven distribution of capital gains. Income is measured as the log of the average post-tax, post-transfer revenues between 2008 and 2010 (to filter out short-term fluctuations). Although one may argue that the initial income is more important since it better represents people's ability to buy into the ownership segment, we argue that the income at the end of the observation period better represents social status for this cohort, given their young age at the start of the observation period. The educational level is also measured at the end

of the observation period and is classified in four categories, based on the program duration: less than 12 years, 12 years, 13-14 years or 12 and more. We consider someone a migrant when this person is born outside Sweden.

We control for individual characteristics and events that occur during the life course. First, we control for different partnering trajectories, because income pooling heavily impacts upon the possibilities one has to realize housing preferences. We distinguish between single, stable cohabitation-, separation-single-, and separation-repartnered trajectories. Note that we consider someone as cohabiting when married or unmarried but registered at the same address as another adult with shared children[5]. Second, we control for moves between areas with a different degree of urbanity in Sweden (e.g. from a large to a medium-sized city, or the other way around). The exposure to housing market fluctuations is measured by (1) the year of moving into homeownership or cooperative housing, and (2) the number of spells in these tenures. Finally, we control for the participation for tenure conversion from public housing into cooperative housing, gender and the presence of children in the household.

Housing pathways

Five complementary housing pathways are proposed as mechanisms explaining the distribution of capital gains across social groups. One pathway describes the tenure status of each spell (homeownership, cooperative or rental housing). Two pathways describe the immigrant composition of the neighborhood at the moment of in-migration and the *in-situ* changes of the share of immigrants during the spell. Moreover, two pathways describe the educational composition of the neighborhood at the moment of in-migration and the *in-situ* changes of the share of individuals with a university degree during the spell. The neighborhood composition is measured by the percentage of migrants (low, medium, high) and the percentage of residents with a university degree (low, medium, high). The boundaries between

5 Cohabitants can only be identified in the data if they have common children. Cohabitants without common children are categorized as singles.

the three groups are defined as +/-0.5SD from the mean in the period under observation. As for the *in-situ* changes, the mean is based on the first three spells in cooperative housing or homeownership. Neighborhood information is calculated on the SAMS (Small Area Market Statistics) level, containing between 1000 (smaller cities) and 2000 residents (Stockholm). Note that we only calculate neighborhood characteristics for spells in homeownership and tenant-cooperatives since residence in rental housing does not produce any capital gains.

We use second generation sequence analysis to construct clusters of housing pathways. These clusters are based on a dissimilarity index, following from the (predefined) 'costs' of deleting/inserting or replacing one spell. These pathways are better suited than event-history models to capture the longitudinal dynamic in the life course (Aisenbrey and Fasang, 2010). In housing studies, they are used to map migration chains (Stovel and Bolan, 2004) and the realization of housing preferences over time (Coulter *et al*., 2016).

The modal sequence plots in Figure 4.1 show a graphical representation of the ideal-typical pathways in every clustering. The pathways are sorted from common (high N) to uncommon (low N). In every clustering, the pathways differ from each other in terms of timing of moving into tenure forms or neighborhood types. Figure 1a shows that the most common tenure pathway is characterized by a long period in rental housing before moving into homeownership. Switches from cooperative housing to homeownership are less common, whereas moves out of homeownership constitute the least followed trajectories. Figure 4.1b shows that moves into neighborhoods with a low or medium share of residents with an immigrant background are far more common than those into a neighborhood with a high share of immigrants, due to an overrepresentation of immigrants in rental housing and a high degree of spatial concentration of tenures in Sweden (Grundström and Molina, 2016). Moreover, Figure 4.1c shows that it is uncommon that the share of immigrants increases in later stages of the pathway. The most common pathways display a stable or a decreasing share of migrants in the neighborhood (Early stable, Mid decreasing). Figure 4.1d shows that moves into neighborhood with a low share of higher educated residents are less common among

homeowners and cooperative dwellers. This is not surprising given the higher educational level of owner-occupiers in general. The most common clusters (Mid high, Early high) are characterized by a short or medium spell in rental, followed by a move into a neighborhood with a high level of education (15.000 and 10.000 individuals). As with immigration, we find that the most common trajectory regarding *in-situ* changes is a stable pattern of modest variation (Figure 4.1e). Not only does the level of education tend to be high at the moment of in-migration, but many individuals also follow pathways where the level of education in the neighborhood is increasing.

Methods

The social selectivity of capital gains and losses is analyzed through OLS-regression models ran step-wise. The initial model only contains the three variables that capture the social selectivity (income, education, migrant status). We then add (a) control variables related to personal characteristics and life course events, (b) characteristics of the housing tenure pathway, namely the length of residence in homeownership and cooperative housing, and the total number of spells, (c) the average percentage of residents with a university degree and migrants at the moment of in-migration across all spells, and the average development of the share of migrants and residents with a university degree across all spells. In this way, we capture the effect of both residential choices and *in-situ* changes. We proceed with a descriptive analysis of the social profile of the five housing pathways in terms of income, education and migrant status. Whereas the regression analysis shows which types of residential choices and *in-situ* developments are profitable, the descriptive analysis of housing pathways shows how common different housing pathways, consisting of more and less profitable elements, are among the social groups. Furthermore, it contextualizes the associations found in the regression analysis by identifying the 'winners' and 'losers' in terms of housing wealth.

Figure 4.1. Modal sequence plots of five types of housing pathway clusters

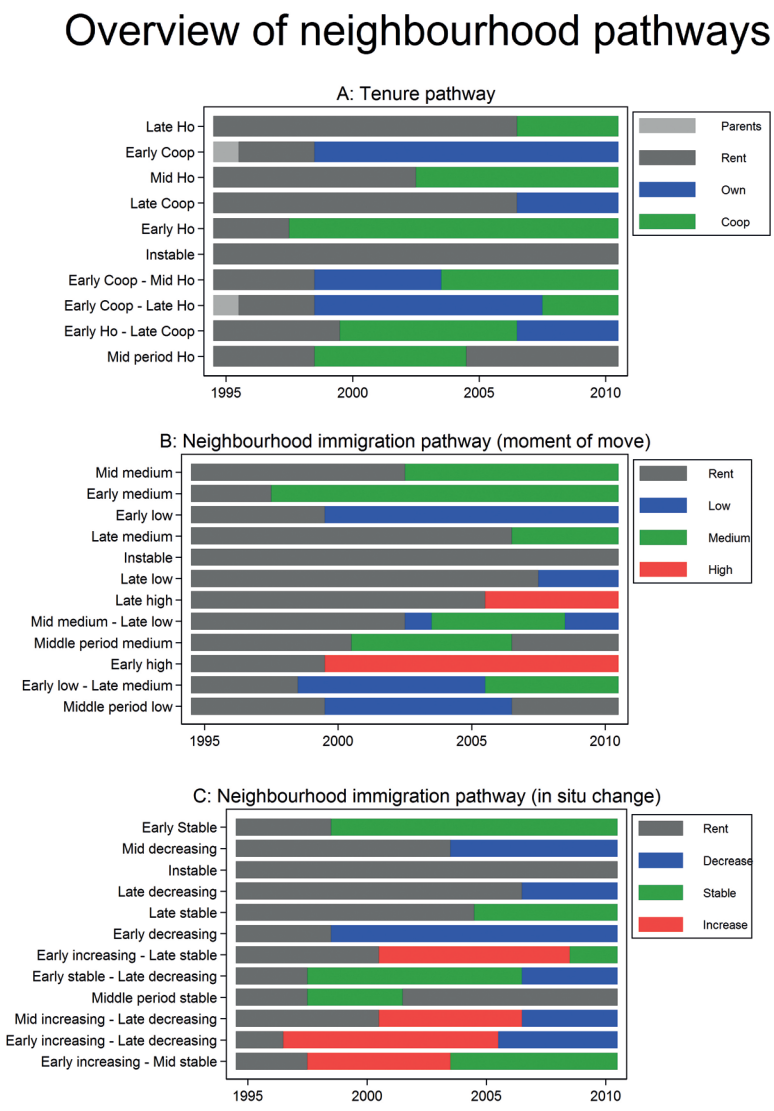
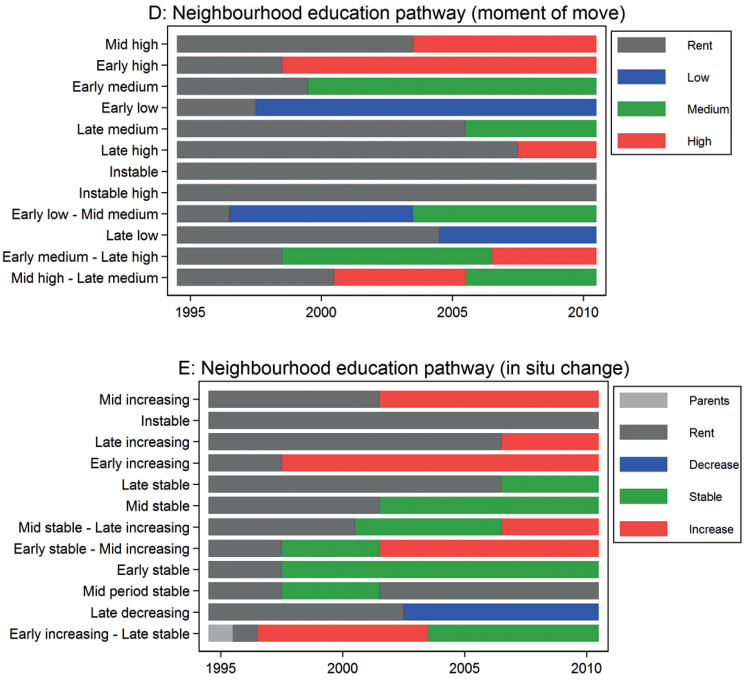


Figure 4.1. Continued



Note: Sorted from common (high N) to uncommon (low N). Source: GeoSweden (2016).

Results

Selective capital gains and losses

In Model 0, table 4.1, we investigate the association between four individual level characteristics (income level, educational level, migrant status and gender) and the magnitude of capital gains and losses between 1995 and 2010. First, we find that post-tax, post-transfer income is positively associated with capital gains, as is being a male. Education, however, is negatively associated with the magnitude of capital gains. Being a migrant is also negatively related. In model 1, control variables are included, describing the household composition, and partnering history. Model 1 shows that the family life course has an effect on capital gains. Compared to first-time married couples, being single is associated with higher capital gains, whereas being divorced

(and re-partnered) and having children is associated with lower capital gains. We suggest that the positive effect of singlehood is due an overrepresentation in small (cooperative) apartments in gentrifying neighborhoods. Moreover, compared to residing in medium-sized cities, residence in larger cities, as well as moves between cities of different sizes, has a negative effect on capital gains. Model 1 predicts 21% capital gains for a low-income, lower-educated male migrant who is married, living with children in a large city, against 39% capital gains for a high-income, highly-educated native Swede (male, married, living with children in a large city). In Model 2, we include the length of residence in homeownership or cooperative housing, the number of residential moves, and whether someone participated in tenure conversion. The coefficient for the length of residence in homeownership or cooperative housing is strongly positive. The model predicts that each additional year in homeownership or cooperative housing is associated with an eight percentage point growth of capital gains. Depending on the socio-economic status of the individual, the model predicts between 20 and 40 % capital losses after one year, but 70 to 90% capital gains after 15 years continuous residence in homeownership. The inclusion of this variable drastically improves the model fit (now 33% explained variance) and results in a change of the effect of education, where the strong negative coefficient for a high level of education turns to zero. This means that the former negative effect of education and residence in a larger city has been due to shorter exposure to one of the ownership tenures. We argue that high-educated individuals (in the larger cities) have a prolonged educational career and therefore postpone moves into homeownership or cooperative housing. Furthermore, those living in larger cities enter homeownership or cooperative housing at a later moment in their life course due to an overrepresentation of temporary residence and a tight housing market. A positive association between residence in one of the larger cities and capital gains is unsurprising given the large surge in house prices in Sweden's metropolitan areas. Also the gender effect disappears after including control variables. The number of residential moves is negatively associated with capital gains.

Table 4.1. Regression analyses with capital gains as outcome variable

	Entire sample					Medium-sized city	Big city
	Model 0	Model 1	Model 2	Model 3	Model 4	Model 4a	Model 4b
Income (log)	1,55***	1,65***	2,75***	2,60***	0,81***	1,96***	0,49
Education							
<12 years (ref,)	-	-	-	-	-	-	-
12 years	-3,84***	-4,33***	0,46	0,44	-1,62***	-0,74	-1,45**
13-14 years	-2,58***	-2,36***	1,63***	1,99***	-2,37***	-0,14	-2,75***
15+ years	-9,93***	-8,36***	0,00	1,15**	-4,97***	-2,78***	-5,51***
Migrant status							
Native Swedish	-	-	-	-	-	-	-
Immigrant	-16,26***	-14,58***	-9,31***	-4,39***	-0,61	-1,93	-0,44
Gender							
Women (ref,)	-	-	-	-	-	-	-
Men	6,18***	5,29***	-0,04	-0,37	0,17	-0,18	0,07
Marital status							
Married (ref,)		-	-	-	-	-	-
Single		2,25***	5,88***	6,95***	6,78***	8,75***	6,93***
Divorced		-13,12***	-13,12***	-12,36***	-2,62***	-4,25**	-2,35**
Divorced & re-partnered		-18,25***	-16,26***	-15,47***	-7,22***	-10,64***	-6,40***
Children							
No (ref,)		-	-	-	-	-	-
Yes		7,37***	14,19***	13,46***	8,45***	10,48***	8,98***
Urbanity							
Always in medium city (ref,)		-	-	-	-	-	-
Always in big city		-5,47***	2,35***	5,34***	7,27***	-	-
From medium to big		-15,11***	-8,20***	-6,91***	-3,88***	-	-
From big to medium		-14,90***	-6,86***	-2,84***	1,86**	-	-

Table 4.1. Continued

	Entire sample					Medium-sized city	Big city
	Model 0	Model 1	Model 2	Model 3	Model 4	Model 4a	Model 4b
From medium to big to small		-24,84***	-12,98***	-10,88***	-5,27***	-	-
From big to medium to big		-24,00***	-9,63***	-6,43***	-0,63	-	-
Other		-30,65***	-12,16***	-8,79***	-0,95	-	-
Number of spells in ho/coop			-14,26***	-13,77***	-7,84***	-10,57***	-8,26***
Years in Ho/Coop			8,35***	8,04***	7,16***	7,82***	7,47***
Tenure conversion			-29,33***	-24,70***	-11,21***	-18,79***	-9,38***
Neighborhood composition: migrants				-1,50***	-1,59***	-2,32***	-1,63***
Neighborhood composition: highly educated				-0,21***	-0,93***	-0,10***	-0,94***
Development of % of migrants in neighborhood					-1,16***	-2,56***	-1,07***
Development of % highly educated in neighborhood					2,65***	2,10***	2,83***
Constant	28,66***	28,02***	-45,77***	-34,12***	-49,43***	-56,12***	-43,17***
R-squared	0,01	0,03	0,33	0,34	0,47	0,47	0,47
Degrees of Freedom	65512	65502	65499	65488	65486	13041	44007
BIC	712625	711544	687574	686271	672345	133728	455325

* p<,1, ** p<,05, *** p<,01

Note: BIC: Bayesian Information Criteria, Ref: Reference category, Source: GeoSweden (2016).

In Model 3, information on residential choice is added. The average share of migrants in the neighborhoods one has been living in between 1995 and 2010, at the moment of in-migration, is negatively associated with capital gains, as is the average share of highly educated residents. The inclusion of these variables slightly includes the model fit. We conclude that the length of residence in homeownership better explains capital gains than the type of neighborhood one moves into.

Model 4 shows the effect of developments in the neighborhood composition during the period of residence. An increase in the share of migrants is associated with lower capital gains, whereas an increase in the share of highly-educated residents is associated with higher capital gains. If the share of migrants increases by one percentage point, capital gains will decrease by 1,2 percentage point, whereas a one percentage point increase of highly educated increases capital gains by 2,7 percentage points. After including the neighborhood development, the effect of being a migrant disappears, the effect of divorce experience becomes much lower and the effect of a higher education turns negative. The results indicate that migrants and divorcees are overrepresented in neighborhoods with an increasing share of migrants and/or a decreasing share of highly educated. Higher educated individuals are, on the other hand, overrepresented in neighborhoods with an increasing share of highly educated residents. Between 1996 and 2010, a low-income, low-educated, male migrant living in Stockholm (married, with children) lost more than half his housing wealth according to predictions by the regression model, whereas a corresponding individual who has a high income, is highly-educated and a native Swede almost doubled his housing wealth.

The last two models compare the results for a sample of individuals who during the entire period 1995-2010 resided in the three large cities with those who have resided in the medium-sized cities. The non-significant coefficient for income for inhabitants in the large cities together with their stronger (negative) coefficients for education indicate that the role of neighborhood change is more important in explaining capital gains in the larger cities due to higher degrees of socio-spatial inequality.

Earlier in this chapter, we presented two hypotheses. Hypothesis 1 stated that capital gains are unevenly distributed towards natives, higher-income and higher-educated individuals. Hypothesis 2 stated that the uneven distribution of capital gains is the outcome of housing pathways regarding tenure, neighborhood composition and neighborhood changes. Our results confirm hypothesis 1 as far as income and ethnicity are concerned whereas education is negatively correlated with capital gains unless length of residence in the ownership segment is controlled for. We also find confirmation for hypothesis 2. Especially the length of residence in homeownership and changes in the neighborhood composition regarding the share of migrants and highly-educated individuals explains why capital gains are distributed unevenly. Especially in the large cities, where a fiercer upswing of socio-spatial inequality has occurred, capital gains are more unevenly distributed towards higher-income groups and native Swedes.

Housing pathways and capital gains

Table 4.2 shows descriptive statistics regarding the social selectivity and profitability of different pathways in each cluster. Whereas the regression analysis in Table 4.1 shows the impact of several basic features of the housing career and the overall effect of residential moves and neighborhood developments on capital gains, the descriptive analyses in Table 4.2 allow us to map the consequences of more complex – and realistic – sets of housing pathways. As for the tenure pathway (Table 4.2a), the most common pathway ("Late Ho") is among the least profitable due to the short exposure to homeownership, and is followed by a rather diverse group in terms of income, education and migration status. In line with the results of the regression analysis in Table 4.1, we conclude that pathways characterized by a longer exposure to homeownership or cooperative housing are more profitable due to the constantly rising house prices. Higher-educated individuals are overrepresented in three pathways characterized by early moves into cooperative housing ("Early Coop", "Early Coop – Mid Ho", "Early Coop – Late Ho"). We expect that they moved into this urban tenure of multi-family housing during their studies or right

Table 4.2. The selectivity and profitability of five types of housing pathway clusters

A: Tenure pathway											
	Income group			Educational group				Migrant status		Gains	N
	Low	Mid	High	<12 y.	12 y.	13-14 y.	15+ y.	Native	Migrant	Total	Total
Late Ho	32%	35%	32%	24%	23%	15%	39%	89%	11%	4%	10831
Early Coop	31%	30%	40%	16%	19%	16%	49%	91%	9%	62%	10679
Mid Ho	32%	34%	34%	24%	23%	16%	36%	92%	8%	33%	9602
Late Coop	31%	34%	35%	21%	21%	16%	43%	86%	14%	5%	9588
Early Ho	35%	36%	29%	31%	25%	17%	27%	95%	5%	109%	9564
Instable	50%	32%	18%	33%	22%	15%	31%	84%	16%	3%	6974
Early Coop - Mid Ho	27%	31%	42%	18%	22%	15%	45%	94%	6%	39%	4111
Early Coop - Late Ho	24%	31%	46%	14%	20%	15%	52%	94%	6%	40%	3575
Early Ho - Late Coop	30%	38%	32%	26%	26%	18%	30%	90%	10%	30%	1456
Mid period Ho	50%	33%	16%	44%	24%	12%	19%	89%	11%	27%	945
B: Neighborhood immigration pathway (moment of move)											
	Income group			Educational group				Migrant status		Gains	N
	Low	Mid	High	<12y.	12y.	13-14 y.	15+y.	Native	Migrant	Total	Total
Mid medium	29%	31%	40%	18%	21%	16%	45%	91%	9%	22%	13452
Early medium	28%	31%	41%	19%	20%	17%	44%	93%	7%	81%	12348
Early low	35%	36%	29%	29%	25%	16%	30%	96%	4%	79%	11342
Late medium	30%	35%	34%	22%	21%	15%	42%	87%	13%	2%	7387
Instable	51%	31%	18%	34%	22%	15%	30%	83%	17%	3%	6197
Late low	32%	36%	32%	22%	24%	15%	39%	92%	8%	3%	6137
Late high	41%	35%	24%	34%	21%	14%	30%	68%	32%	8%	2585
Mid medium - late low	24%	33%	44%	13%	20%	16%	50%	93%	7%	12%	2168
Middle period medium	45%	31%	24%	28%	21%	15%	37%	88%	12%	22%	1899
Early high	36%	33%	31%	26%	22%	15%	36%	84%	16%	53%	1654
Early low - late medium	29%	36%	35%	22%	24%	16%	38%	94%	6%	39%	1341
Middle period low	50%	36%	14%	38%	27%	12%	22%	94%	6%	24%	815

Table 4.2. Continued

C: Neighborhood immigration pathway (in situ change)											
	Income group			Educational group				Migrant status		Gains	N
	Low	Mid	High	<12 y.	12 y.	13-14 y.	15+ y.	Native	Migrant	Total	Total
Early stable	34%	35%	31%	28%	24%	16%	32%	96%	4%	82%	13083
Mid decreasing	30%	31%	39%	19%	21%	16%	44%	89%	11%	19%	10193
Instable	43%	34%	24%	29%	22%	15%	34%	85%	15%	1%	8790
Late decreasing	32%	35%	33%	23%	21%	15%	40%	85%	15%	3%	8287
Late stable	31%	35%	34%	21%	23%	15%	40%	94%	6%	13%	6569
Early decreasing	32%	32%	36%	23%	21%	17%	39%	92%	8%	95%	6494
Early increasing - Late stable	36%	33%	31%	26%	21%	15%	38%	87%	13%	41%	2930
Early stable - Late decreasing	23%	28%	49%	14%	17%	16%	53%	93%	7%	40%	2910
Middle period stable	47%	32%	21%	30%	23%	15%	33%	89%	11%	8%	2479
Middle increasing - Late decreasing	27%	33%	40%	20%	21%	14%	46%	89%	11%	21%	2295
Early increasing - Late decreasing	28%	33%	38%	19%	24%	17%	41%	91%	9%	74%	1919
Early increasing - Mid stable	31%	36%	33%	21%	24%	15%	40%	94%	6%	43%	1376
D: Neighborhood education pathway (moment of move)											
	Income group			Educational group				Migrant status		Gains	N
	Low	Mid	High	<12 y.	12 y.	13-14 y.	15+ y.	Native	Migrant	Total	Total
Mid high	25%	30%	46%	12%	18%	16%	53%	93%	7%	15%	11586
Late high	22%	26%	52%	8%	16%	16%	59%	94%	6%	63%	8901
Early medium	33%	35%	32%	26%	24%	18%	32%	93%	7%	79%	8165
Early low	41%	39%	20%	40%	27%	15%	19%	92%	8%	90%	8084
Late medium	36%	38%	25%	31%	25%	15%	30%	85%	15%	7%	7367
Late high	29%	34%	37%	18%	21%	16%	46%	89%	11%	1%	6823
Instable	52%	32%	17%	36%	23%	14%	27%	83%	17%	2%	5378
Instable high	45%	30%	25%	25%	20%	15%	39%	87%	13%	13%	3125
Early low - Mid medium	35%	40%	25%	32%	29%	15%	23%	93%	7%	59%	2947

Table 4.2. Continued

D: Neighborhood education pathway (moment of move)											
	Income group			Educational group				Migrant status		Gains	N
	Low	Mid	High	<12 y.	12 y.	13-14 y.	15+ y.	Native	Migrant	Total	Total
Late low	42%	40%	19%	38%	28%	13%	21%	82%	18%	9%	2151
Early medium - Late high	27%	32%	41%	17%	21%	17%	45%	92%	8%	36%	1447
Mid high - Late medium	29%	30%	40%	14%	20%	16%	49%	94%	6%	28%	1351
E: Neighborhood education pathway (in situ change)											
	Income group			Educational group				Migrant status		Income group	
	Low	Mid	High	<12 y.	12 y.	13-14 y.	15+ y.	Native	Migrant	Low	Mid
Mid increasing	31%	32%	37%	20%	22%	16%	43%	93%	7%	42%	13787
Instable	43%	33%	23%	30%	22%	14%	33%	84%	16%	1%	9358
Late increasing	30%	35%	35%	20%	20%	15%	45%	90%	10%	5%	9082
Early increasing	34%	32%	34%	24%	22%	18%	37%	94%	6%	131%	8244
Late stable	33%	36%	31%	26%	24%	16%	34%	85%	15%	5%	6249
Mid stable	36%	33%	31%	28%	24%	15%	33%	89%	11%	26%	4697
Mid stable - Late increasing	26%	33%	41%	17%	20%	16%	47%	93%	7%	27%	4126
Early stable - Mid increasing	29%	33%	38%	21%	23%	16%	40%	95%	5%	50%	3066
Early stable	32%	37%	32%	33%	26%	15%	26%	92%	8%	65%	2955
Mid period stable	47%	31%	22%	29%	23%	15%	33%	88%	12%	14%	2145
Late decreasing	28%	32%	39%	22%	22%	16%	40%	90%	10%	25%	1996
Early increasing - Late stable	24%	30%	46%	10%	17%	18%	55%	94%	6%	63%	1620

Source: GeoSweden (2016).

afterwards, using their moderate early-career incomes to buy a share in a cooperative. Those who moved into (generally more suburban) homeownership later on fared less well in terms of capital gains. This is not surprising since central areas experienced more rapid price increases than peripheral locations between 1995 and 2010. However, all three pathways belong to the top-five most profitable pathways in this clustering (capital gains between 39% and 62%). Low-income earners are overrepresented in pathways characterized by moves out of homeownership before the end of the observation period (the "Instable" and "Mid period Ho" pathway). It seems that they fall out of the homeownership due to their more precarious economic position. Especially the "Instable" pathway is unprofitable (3% capital gains). Two pathways stick out with a high percentage of migrants; "Instable" and "Late Coop". Both pathways comprise a short exposure to the two ownership tenures, which strongly reduces capital gains.

As for the pathways related to immigrant composition at the moment of residential mobility, the most common pathways, with about 15,000 individuals in each, are "Mid medium", i.e. remaining in rental for a short spell and then move into a neighborhood with a medium share of immigrants (some also start in a neighborhood with a high share and the move on into medium), and "Early medium", which is a similar pattern but with an earlier move into neighborhoods with a medium-level share (see Table 4.2b). Both pathways are characterized by high shares of high-income earners (40% and 41%) and highly educated (45% and 44%). Capital gains are much higher for the "Early medium" than for the "Mid Medium" cluster, due to a later move into homeownership or cooperative housing in the latter case. As could be expected on the basis of studies on the high degree of ethnic segregation in the Swedish context (Grundström and Molina, 2016), migrants move disproportionally often into neighborhoods with a high concentration of migrants (the "Late high" and "Early high" pathway). These clusters are also characterized by a slightly lower share of high income earners and highly educated but it should be noted that these shares are still high. Almost a third of the individuals following the "late high" pathway" have 15 years of schooling or more. This number is equivalent to the

"early low" pathway cluster, with the fewest migrants. If we compare housing pathways in which an early move into homeownership is accompanied by a move into a neighborhood with a low- or a high share of migrants, it is remarkable that the move into an immigrant-dense neighborhood results in lower capital gains (53% versus 79%).

Regarding *in-situ* changes in terms of the share of migrants (Table 4.2c), we find that the most common cluster is one in which individuals move into a neighborhood with a certain share of migrants early on, whereas this share remains relatively constant during the time of residence ("Early stable"). This is not surprising, given the stable development in ethnic segregation over time and the generally low and stable share in ownerships areas (Hedman and Andersson, 2015). With capital gains of 82%, this is the second most profitable pathway in the clustering. The most profitable housing pathway is one in which individuals move into neighborhoods with a declining share of migrants at an early moment in the life course ("Early decreasing"). Comparing the "Early stable" pathway with the "Early decreasing" pathway, the latter is associated with higher capital gains (95%) than the previous (82%). The more profitable pathway cluster contains a slightly higher share of immigrants, but a higher share of high-educated residents. We expect this to be the profile of gentrification neighborhoods, in which staying put can be a profitable option for the previous majority group (migrants, potentially higher-educated or medium-to-high income) when gentrifiers move in (high-educated individuals). Four of the ideal typical pathways start with a spell in a neighborhood that displays an increasing share of migrants, but none ends in such a spell. This is a sign that individuals tend to move away from these kinds of surroundings, and of a further concentration of immigrants in immigrant-dense rental neighborhoods.

It could be expected, given the generally higher level of education in the ownership segment compared to rentals, that most individuals belong to clusters where the level of education in the neighborhood is high. This is also what we find: the two most common clusters, "Mid high" and "Late high" (with 11.000 and 9.000 individuals respectively) are characterized by a short or medium spell in rental, followed by a move into a neighborhood with a high level of education (Table 4.2d).

The individual post-transfer, post-tax income in the period 2008-2010 seems to be strongly associated with the neighborhood income at the moment of in-migration. High-income earners are overrepresented in all the pathways with at least one spell in a neighborhood characterized with a high share of highly educated residents. Contrary, migrants are overrepresented in the "Late low", "Late medium" and "Instable" cluster. However, large capital gains are not only realized by housing pathways through neighborhoods with a relatively large share of highly educated residents. The largest capital gains are found in the "Early medium" pathway (79%), followed by the "Late high" (63%) and the "Early low – Mid medium" pathway (59%). The larger share of high-income earners in the "Early medium" compared to the "Late medium" pathway suggest that this might be due to *in-situ* changes.

Looking closer at *in-situ* changes (Table 4.2e), we find that high-income earners are overrepresented in nearly all clusters characterized by at least one spell in a neighborhood with an increasing share of residents with a high educational level, and in the only cluster characterized by one or more spells in a neighborhood with a decreasing share of residents with a high educational level ("Late decreasing"). By far the largest capital gains can be found in the "Early increasing" cluster (131%), characterized by an early move into a neighborhood with an increasing share of high-educated inhabitants during the period of residence. None of the income- or educational groups is overrepresented in this cluster. This might be the result of upgrading processes in which a formerly majority working class neighborhood becomes mixed in terms of income. The share of migrants following this housing pathway is low. The least profitable housing pathways comprise longer spells in rental housing and/or a middle spell in a neighborhood with a stable share of high-educated residents. Lower-income groups seem to be slightly overrepresented in these pathways.

Altogether, the selectivity of capital gains on the housing market can be largely explained by the housing pathways people follow (see Table 4.2). However, the most profitable housing pathways (an early increasing share of high-educated: 131%, an early decreasing share of immigrants: 95%) are mixed in terms of income and education. Both

residents with a lower social status who stay put, and newcomers with a higher social status, profit from the upgrading process. Other pathways that are associated with relatively high capital gains consist of moves into neighborhoods with low shares of migrants, high shares of high-educated, and are selective to higher income- and educational groups. Moreover, capital gains among migrants and low-income earners are limited due to their later moves into homeownership or cooperative housing. Early moves into cooperative housing have contributed to larger capital gains among higher-educated individuals.

Conclusion

Local housing market dynamics lift up house prices in some periods and in some neighborhoods, whereas they lower them in others. This means that moving into the right/wrong area at the right/wrong moment in time can generate windfall profits/losses for individual homeowners. However, in the academic debate on housing wealth inequality, capital gains and losses are largely overlooked (exceptions include Hamnett, 1999] and Newman and Holupka, 2016). Instead, the accumulation of housing wealth is implicitly viewed as a function of income, determining the initial purchase price of the dwelling, the initial size of the mortgage and the mortgage amortization. In this line of reasoning, the increase of income inequality in Sweden (and across the board in Europe (Alderson *et al.*, 2005) is the main cause behind increasing levels of housing wealth inequality. Such accounts leave out the option that the housing market itself might be an engine under housing wealth inequality. It is likely that the role of the housing market has only gained importance in recent decades with the increase of socio-economic segregation (Tammaru *et al.*, 2015), especially in Sweden which became one of the most liberal-governed housing markets in the EU in the 1990s (Hedin *et al.*, 2013). A more unequal development of house prices within urban regions increases the importance of making the right residential decisions. This chapter focuses on capital gains and losses on the housing market of the 13 largest Swedish cities between 1995 and 2010, for a

cohort born between 1970 and 1975 that entered homeownership or cooperative housing (in Sweden equivalent to homeownership in apartment buildings) around 1995.

Our results suggest that capital gains and losses on the housing market are unevenly distributed towards high-income, native Swedes. Hence, housing wealth inequality is not just an outcome of differences in purchasing power on the housing market, but also of uneven returns on this initial investment. This finding provides evidence for Hamnett's (1999) claim that capital gains increase with social class. Moreover, it supports Newman and Holupka's (2016) finding, that capital gains are unevenly distributed towards the white high-income population, even in a period of continuously rising prices. Interestingly, highly-educated individuals have initially lower capital gains than their lower-educated counterparts as a result of their later entry into homeownership or cooperative housing. However, after this postponed entry into homeownership or cooperative housing, they accumulate capital gains at a faster rate.

The uneven distribution of capital gains can to a large extent be explained by the housing pathways people follow. Lower educated and migrants are overrepresented in housing pathways characterized by a late entry into homeownership or cooperative housing, or an exit out of these tenures which both result in less capital gains. *In-situ* changes in the neighborhood composition regarding the share of migrants and highly educated between 1995 and 2010 are the best predictors of capital gains. However, the most profitable pathways (through neighborhoods with a decreasing share of migrants or an increasing share of highly educated) are followed by people with various backgrounds. It concerns especially gentrification neighborhoods where both population that stayed put and the newcomers with a higher social status could profit from increasing house prices. The overrepresentation of highly educated in neighborhoods with a low or moderate share of migrants, and a high share of residents with a university degree, partly explains their advantageous position vis-à-vis lower educated in terms of capital gains. Neighborhoods with a higher social status from the outset fared better than those with a lower social status.

Making up the balance sheet of the period between 1995 and 2010, native Swedes with high incomes and high educational attainments could cluster together, since homeownership and cooperative housing in neighborhoods where they were already over-represented became unaffordable for other social groups. Decades of market-oriented reforms on the Swedish housing market (privatization public housing, liberalization of mortgage finance etc.) have contributed to a more market-based sorting of individuals over urban space. Although this has inflated house prices across the board, low-educated, low-income individuals and migrants have barely profited. The selective redirection of housing pathways that constitutes socio-spatial polarization enlarges housing wealth inequality between natives and migrants, lower- and higher educated, and lower and higher income groups due to divergent returns on their investments in housing. Both economic and cultural capital contribute to this outcome since only the affluent are able to buy into neighborhoods with a high (and increasing) status, whereas only those with knowledge of the urban housing market (cultural capital) know where investments in housing become part of a new gentrification frontier with larger returns (Hochstenbach and Boterman, 2015). In conclusion, the housing market has become a major engine under housing wealth inequality due to market-oriented reforms and a subsequent upswing in socio-spatial inequality.

CHAPTER 5

Explaining the Tenure Wealth Gap: a Comparison of 14 European Countries with Different Housing-welfare Regimes

Abstract

Previous research consistently shows that homeownership is positively associated with higher levels of net worth. The existence of this gap might in part arise from a larger appetite among homeowners for wealth accumulation, whereas cross-country differences regarding the size of the tenure wealth gap result from variegated orientations of their combined welfare state and housing systems. Since WWII, European countries have promoted homeownership by means of different policies, for a variety of reasons (i.e. improving housing shortages, housing quality, affordability and capital accumulation), which has an impact on opportunities for housing wealth accumulation. In this paper, we describe the size of the tenure wealth gap for 14 European countries, and explain cross-country differences in its magnitude with the configuration of the welfare state and the housing system. The empirical analyses are based on the Household Finance and Consumption Survey (HFCS). Our findings demonstrate that homeowners have higher levels of net worth and higher levels of financial (non-housing) wealth than tenants. Surprisingly, in countries with conservative housing finance, a non-preferential tax treatment of homeownership and limited house price inflation, we find relatively large tenure wealth gaps; this is associated with wide-spread private landlordism in a larger, more regulated rental market. Countries with a financialized expansion of homeownership are characterized by very small tenure wealth gaps, due to wide-spread mortgage debts. In countries with a low coverage or generosity of its pension system, tenure wealth gaps are moderate, since tenants need to compensate for the lack of housing wealth, which is the preferred pension supplement in these societies.

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Introduction

Many studies show that homeowners have higher levels of net worth than tenants (e.g. Di *et al.*, 2007; Haurin *et al.*, 2002; Lersch & Dewilde, 2016; Turner and Luea, 2009). Net worth is the sum of financial wealth and housing wealth minus any (residential) debts. With every year in homeownership, a household's net worth increases, mainly due to mortgage amortization and house price inflation (Di *et al.*, 2007). For low- and middle-income households, who buy generally cheaper properties on less attractive locations, similar results are found (Turner and Luea, 2009). Homeownership is considered as one of the most effective enforced saving schemes (Soaita and Searle, 2016). A failure to keep up with monthly interest and amortization payments results in eviction from the home, whereas savings for tenants are non-committal (Quigley, 2006). The above-mentioned country studies point out that tenure wealth gaps exist across various institutional contexts. However, they do not show or explain international differences in the magnitude of the tenure wealth gap.

The existence of tenure wealth gaps is the result of three mechanisms: (1) a selection of households with an appetite for wealth accumulation into homeownership (Keister *et al.*, 2016); (2) a gap between the 'long-term' user-costs of homeownership (based on interest rates, house price developments and taxation) and renting (based on the rent) (Quigley and Raphael, 2004); and (3) differences in the necessity to accumulate savings as a result of differences in the role of housing assets in different pension systems. Due to the cross-sectional design of our study, we cannot fully explain the existence of a tenure wealth gap on the individual level, since we are not able to fully control for the selection of households with an appetite for wealth accumulation into homeownership (See Lersch and Dewilde [2015] for a panel perspective on homeownership and savings). Instead, we accept the assumption that the first mechanism is of similar importance across the board: In all countries, households with an appetite for wealth accumulation select themselves into homeownership. Therefore, we focus on the macro-level and study the international variation in the role of the other two mechanisms (related to the welfare state and the housing

system) that that explain the magnitude of the tenure wealth gap in different institutional contexts.

Explaining cross-country differences regarding the size of the tenure wealth gap on the basis of institutional differences starts from Kemeny's (1981) claim that the superiority of homeownership over rental housing is constructed in a dialectic between ideology and policy. In this line of reasoning, larger tenure wealth gaps are rooted in policy systems that favor homeownership ideologically and practically, and therefore incentivize households to move into homeownership and accumulate wealth. One of the above-mentioned mechanisms explaining the existence of differences regarding the tenure wealth gap across countries, namely the user-costs of housing of tenants versus homeowners, is studied for a limited number of countries, over certain reference periods (Haffner and Heylen, 2011; Quigley and Raphael, 2004). International comparisons are however limited due to the complicated methodology of this method, which takes into account the costs of housing (changing over time while amortizing the mortgage) and the depreciation rate (changing during the house price cycle). By researching variations regarding the size of the tenure wealth gap across a broad range of countries, this paper provides further evidence of the (wealth) consequences of housing systems that determine the user-costs of housing, and welfare states that determine the necessity to save, without adding the complexity and uncertainty about future price developments that user-costs of housing-approaches normally require.

The main interest of this paper is in identifying and explaining tenure wealth gaps in a range of European countries representing different housing-welfare regimes (HWR's). The empirical analyses in this paper are based on the Household Finance and Consumption Survey (HFCS) of the European Central Bank (ECB), carried out in 2010/11, which provides multiple imputed data on wealth, incomes and consumption. Since data collection took place after the Global Financial Crisis of 2008, which had a negative impact on (housing) wealth holdings, our estimations of tenure wealth gaps are relatively conservative. The country selection is restricted to a group of Eurozone countries monitored by the ECB (Belgium, Germany, Greece, Spain,

France, Italy, Cyprus, Luxemburg, Malta, the Netherlands, Austria, Portugal, Slovakia and Finland). We focus on the middle-income brackets, aged between 30 and 67, who are not retired. The middle-income groups have a 'real' tenure choice, as they can afford both tenures, which allows us to focus on the effect of tenure on wealth holdings, while additionally controlling for the income level in our multivariate models. As a sort of sensitivity check, we performed analyses on a sample with a wider age section as well, which generated similar results. Furthermore, we focus on those who are not retired, since pension income does not always represent the labor market income that is used to purchase the house.

The tenure rent gap: general principles

For tenants, net worth consists of financial wealth only, whereas it consists of a combination of financial wealth and housing wealth for homeowners. A gap in favor of homeowners exists when they have more savings than tenants, or when their financial- and housing wealth holdings together are larger than the savings of tenants. Country studies find evidence for both claims. Studies consistently find higher levels of net worth among homeowners versus tenants (Haurin *et al.*, 2002; Di *et al.*, 2007; Turner and Luea, 2009). Pryce and Keoghan (2002) point out that homeowners save more than tenants as well, to be able to keep up with mortgage payments in times of income loss, whereas Lersch and Dewilde (2016) point out that the inclination of owners and tenants to save is dependent on opportunities and constraints molding life courses and life-course decisions, and differs between countries with different housing systems. However, across a wide range of countries, it is confirmed that housing wealth holdings of homeowners are larger than savings of tenants. The above-mentioned evidence suggests that there are both 'tenure wealth gaps' and 'tenure financial wealth gaps'. We acknowledge that homeownership is part of an 'investive life style', oriented towards long-term stability and wealth accumulation (Keister et al., 2015). Therefore, the selection of individuals with a preference for wealth accumulation into homeownership is one of the main individual-level factors explaining the existence of a tenure wealth

gap. In the remainder, we however focus on two other factors explaining cross-sectional variations in the size of this tenure wealth gap: the user-costs of housing and the necessity to save. These two factors are determined by the housing system and the welfare state, and influence cross-country variations, rather than 'inherent', 'personal' inclinations to save and become a homeowner, which we assume to be fairly similar across Europe.

First, differences in the user-costs of housing between tenants and homeowners determine the possibilities for wealth accumulation among both groups. Quigley and Raphael (2004) define the user-costs of housing as the costs for housing as a service. For tenants, the user-costs consist of the rent, whereas for homeowners they are composed of mortgage interest payments and maintenance costs, minus the depreciation rate of the home. The latter factors are however intertwined. Subsidies for homeownership (see Donner, 2000) and policy-indulged low interest rates (see Aalbers, 2016) have rendered homeownership more affordable in later decades, while simultaneously contributing to house price appreciation. In a theoretical fashion, one could argue that in this process the costs of housing as a service have been reduced, while capital gains are inflated. In a more practical fashion, we conclude that this contributes to wealth accumulation among homeowners. Even in the 1970s, before housing- and mortgage market deregulation, housing scholars already pointed at the consequences of homeownership subsidies such as building grants, subsidized loans, property tax exemptions and mortgage-interest tax deductions (see Donner, 2000) for wealth accumulation and disparities between tenants and homeowners. Pahl (1975) prophetically stated that "[a] family may gain more from the housing market in a few years than would be possible in savings from a life time of earnings" (p.291). However, gains and losses from housing market booms and busts are unequally distributed through time and space, depending on the housing system (Hamnett, 1999; Wind and Hedman, 2016). Even in a policy vacuum, the user-costs of housing can be expected to be higher for tenants compared to homeowners, although the difference can be expected to be smaller than in the contexts outlined above. Controlling for income, tenants spend more on housing than homeowners due

to a risk premium charged by landlords. Fahey and Norris (2011) cite Henderson and Ioannides (1983) when they state that "renting is subject to a 'rental externality' arising from the incentive tenants have to over-utilize their dwelling, for instance, by using it to accommodate a greater number of occupants or by taking less care of it than owners might" (p. 447). Rent regulations, housing allowances or the availability of social housing reduce the user-costs of rental housing and therefore contribute to wealth accumulation among tenants. French evidence suggests that residing in public housing speeds up the transition into homeownership since it allows tenants to accumulate some wealth that can be used as a down payment (Goffette-Nagot and Sidibé, 2014). To summarize the discussion above, we expect that in countries where the user-costs of homeownership are lower and rents are higher, the tenure wealth gap will be larger.

Second, the necessity to accumulate wealth is determined by the orientation of the welfare state. Social protection against income loss due to unemployment, sickness or old-age, determines to what extent it is necessary to save private resources to cater for welfare needs. De Swaan (1988) argues that contributions to state-funded social insurance schemes should be conceptualized as 'transfer capital'. He states that "[w]hatever is accumulated by wage-earners through their contributions, is not theirs to dispose of. It is tutelary property, kept for them until 'really' needed. If contributors 'own' anything, it is a claim to future transfers upon specified conditions of adversity or deficiency" (p. 152). In other words, transfer capital crowds out private wealth. In countries with a low generosity or coverage of welfare arrangements, individuals need to accumulate private wealth to cater for welfare needs, and are able to do so due to the lower social contributions in these countries. It might be attractive to accumulate wealth through homeownership, especially for self-employed who are over-represented in private landlordism. Since tenants need to accumulate private wealth through other means, the gap between homeowners and tenants regarding net worth is not necessarily larger in such contexts. In contexts with a more generous, universalistic welfare state, homeowners accumulate housing wealth on top of 'their' transfer capital instead of as a replacement of transfer capital.

Tenants, who spend – controlling for the income – a comparable or larger share of their income to satisfy their housing needs, are not in need of extra savings. Therefore, the tenure wealth gap can be expected to vary between different welfare state contexts.

The tenure wealth gap in Europe

The size of the tenure wealth gap is expected to vary across Europe, since two drivers of the tenure wealth gap, namely the user-costs of housing and the necessity to save, are associated with differences between different housing systems and welfare states. We propose five 'housing-welfare regimes' (HWR's) in which the housing system and welfare state are configured in a different fashion. Therefore, we first present the classic theory that connects housing and welfare, which we amend subsequently by introducing theories of housing system- and welfare state change as a consequence of intensification of economic globalization and economic restructuring.

The classic trade-off

The earliest attempts to integrate theories on housing systems and welfare states connect the two drivers of the tenure wealth gap: the user-costs of housing and the necessity to save. Kemeny (1981) argues that countries with high homeownership rates do not develop generous welfare states. Key in his argument is the distribution of housing expenses across the life course for both tenure groups. Whereas tenants pay (a fairly even amount) of rent across the life course, homeowners are characterized by 'frontloading'. Their housing-related expenditures peek early in their career, when they build their own house or when they amortize their mortgage. Therefore, they are reluctant to support the introduction of higher taxes, needed to finance the establishment of a generous welfare state. Castles (1998) refines this argument by narrowing down the trade-off between homeownership and welfare to a trade-off between homeownership and pensions. Due to financial frontloading, the housing expenses of homeowners are very low after the amortization of the mortgage. Homeowners are therefore not in need of very generous public (PAYG) pensions. The above-mentioned trade-off is based on social protection

and expenditures, but could also be interpreted in line with de Swaan's (1988) vision, in which transfer capital (social security wealth) crowds-out private savings (including housing wealth accumulation), vica versa. Following the classic trade-off between homeownership and welfare, there are countries with low homeownership rates and generous pensions, and countries with high homeownership rates and low pensions.

Changing housing systems and the user-costs of housing

Three housing-welfare regimes (HWR's) can be positioned in the above-mentioned classic trade-off between homeownership and pensions. First, there is the Regulated HWR, consisting of a group of German-speaking countries with relatively low homeownership rates, large regulated rental sectors, and generous public pensions (Germany and Austria). In this regime, the taxation of homeownership is moderately low and subsidies for homeownership uncommon. Tax benefits for rental landlords are considerable, which increases the attractiveness of owning rental housing in these countries (Bourassa and Hoesli, 2010). As a result of a political compromise between social-democrats and conservatives, homeownership is widespread in rural surroundings, whereas rental housing dominates the cities (Matznetter, 2002). In this regime, the user-costs of homeownership are relatively high, as a consequence of limited house price inflation due to the conservative housing finance system that requires considerable down-payments. The user-costs of housing are lower for tenants due to extensive rental regulations.

Second, there is the State-supported HWR (Belgium, France, Finland), in which homeownership rates are moderately high, Pay-As-You-Go[6] (PAYG) pensions relatively generous, but funded pensions are small. The countries in this regime favor homeownership over rental housing by means of fiscal benefits and (indirect) subsidies (Donner, 2000). Homeownership is promoted as pension arrangement, rather than investments in funds. Among self-employed, who are

6 Pay-As-You-Go pension systems use the pension contributions of the current cohort of workers to finance the pensions of the retired population. In funded pension systems, a cohort of workers saves for their own pensions after retirement.

poorly covered by the welfare state, secondary property ownership is common to supplement pensions (De Decker and Dewilde, 2010). Rents in the, predominantly private, rental sector are high due to the fairly unregulated nature of this market (Haffner *et al.*, 2008). For the lowest income groups (not included in this study) social housing is available. For the middle incomes, one could argue that homeownership is a public-private pillar of the welfare state in the State-supported HWR. Whereas the user-costs of homeownership are subsidized, the user-costs of rental housing far less subsidized.

Third, a group of Mediterranean and post-communist countries makes up the Familialistic HWR (Italy, Malta, Greece and Slovakia). In the Mediterranean countries, homeownership has become the dominant tenure due to a high tolerance towards informal self-construction (Allen, 2006). Currently, homeownership is taxed moderately. In the countries with a post-communist legacy, the taxation of homeownership is often very limited as a result of the mass-privatization of (low-quality) rental housing after the fall of communism, which transferred assets that were a financial burden for the state to households (Stephens et al., 2015). What unites this subset of Mediterranean and post-communist countries is the large role of the family in the provisioning of housing. This is, for instance, visible through the low rent levels in these countries due to rent-free living and family-landlordism (Allen, 2006). The user-costs of housing are moderate for both tenures in the Familialistic housing-welfare regime. However, wealth accumulation has a different meaning in this regime since wealth should be considered a family rather than a household resource in these countries.

Two housing-welfare regimes can no longer be positioned in the 'classic' trade-off between housing and welfare due to changes in their political economy of housing and welfare. In countries that introduced liberal mortgage finance, homeownership rates have increased, without causing a reduction of pension generosity or pension wealth. Schwartz (2014) argues that a complementarity between mortgage debts and pension wealth has arisen, since large mandatory pension savings (in funds) cover the residential loans of the mortgaged homeowners. Delfani *et al.* (2014) add that this

complementarity only occurs when housing is provisioned through the market and pensions are organized as collective, mandatory funds. The complementarity between pensions and mortgage debt can be conceptualized as a form of macro-level asset-based welfare. Contra to classic welfare provisioning, in which social contributions are used to fund collective arrangements, asset-based welfare is built on private wealth (assets) that can be used to absorb income shocks.

The regime in which the liberalization of housing finance has taken place first, is the Financialized HWR, consisting of the Netherlands and Luxemburg. These countries have geared towards a fully financialized model of homeownership provisioning already in the early 1990s. The deregulation of mortgage markets allows financial institutions to take larger risks, by externalizing risks to third parties (residential mortgage-backed securities). Higher loan-to-income and loan-to-value ratios, and reduced interest rates, enabled a larger share of the lower-middle class to enter homeownership (Schwartz and Seabrooke, 2008). In the Netherlands, loan-to-value rates of more than 100% are common practice. The financialized provisioning of homeownership has impacted upon housing market dynamics. It has increased the turnover rate on the housing market (van der Heijden et al., 2011) and boosted house prices (OECD, 2014). The increased borrowing capacity boosted the purchasing power of households, while bidding on the same properties as before. Whereas house prices followed inflation in Germany (representative of a conservative housing finance system), prices tripled in real terms since the mid-1980s in the Netherlands (representative of a liberal housing finance system). The introduction of liberal housing finance can be considered as a continuation of the promotion of homeownership through subsidies. In the Netherlands, mortgage tax relief is still larger than all taxes on homeownership together (Hilbers et al., 2008). The house price inflationary policies entail a gain for homeowners, but a loss for tenants. Rent levels in the Financialized housing-welfare regime are among the highest in Europe since the commodification and financialization of housing have resulted increased the premiums charged by private landlords. Especially for low-income tenants, affordability has decreased (Dewilde and De Decker, 2016). Hence,

homeowners have more room to save, due to their lower housing expenses. In the Financialized housing-welfare regime, the user-costs of homeowners are heavily subsidized, whereas they are only reduced for a subsample of social tenants (all countries in this regime have relatively large social rental sectors [Housing Europe, 2015]).

Finally, there is the Financialized-familialistic HWR, consisting of countries that are historically characterized by a large role of the family in the provisioning of housing, and consequently high homeownership rates, and shifted towards a financialized provisioning of homeownership since the (late) 1990s (Spain, Portugal and Cyprus). In this regime, the share of outright homeownership is however still far larger. Furthermore, pensions are less generous and pension funds smaller.

Changing welfare states and the necessity to save

The necessity to save differs between countries along the lines of the above-mentioned housing-welfare regimes. First, the generosity of welfare state benefits (especially pensions) determines the necessity to save. Second, the role of private assets in welfare provision impacts upon the necessity to save.

The generosity of the welfare state has an impact on wealth accumulation of different socio-economic groups. Cowell et al. (2012) conclude that "[i]n countries with more generous and inclusive welfare state provision there will not only be less incentive to accumulate private wealth holdings but as these services are funded through taxation this will reduce personal income, as taxation represents a form of compulsory saving, and therefore the ability to accumulate personal financial assets" (p. 10). However, this trade-off seems to apply to the lower socio-economic strata only. They engage in consumption when labor-market and life-course risks are covered by collective insurance schemes. The upper socio-economic strata are able to invest a considerable share of their high and stable labor market income. In an overview of wealth inequality in Europe, Skopek et al. (2014) find that European countries with more extensive welfare states are therefore characterized by generally more unequal wealth distributions. When this line of reasoning is extended to the necessity

to save for tenants and homeowners, one could argue that tenants need private savings in the housing-welfare regimes with low pensions or fragmented pension coverage in order to compensate for the lack of housing wealth holdings, such as in the State-supported HWR and the Familialistic HWR, whereas the necessity to save for tenants is much lower in the Regulated HWR, as tenants are covered by generous welfare state arrangements.

The generosity of the welfare state has changed as a result of welfare state restructuring. Some scholars describe this restructuring as retrenchment under influence of fiscal austerity (Garett and Mitchell, 2001), whereas others see resilience or gradual change under influence of the creation of a welfare state constituency that votes against retrenchment (Pierson, 2001). Lennartz (2017) classifies countries based on changes in two types of welfare state spending between 1995 and 2007: protective spending and productive spending. Protective spending represents the classical social security expenses, whereas productive spending entails expenses for active labor market policies and social investment strategies. First, there is a group of countries where productive spending has decreased whereas protective spending has remained stable or slightly decreased as well. It concerns countries from the State-supported HWR and the Regulated HWR. Second, there are "Southern, Central and Eastern European countries [that] have retained a welfare model that primarily aims to protect and stratify income" (p. 126), by increasing both protective and productive spending. It concerns especially countries from the Familialistic HWR and the Financialized-familialistic HWR.

Due to the introduction of social investment strategies and asset-based welfare in the Financialized HWR, the relationship between welfare state generosity and the necessity to accumulate private wealth is no longer linear. Especially in Northwestern Europe, the welfare state has been reorganized to include those who suffer from new social risks (such as recurrent unemployment, divorce, single parenthood) with, consequentially, a new balance between rights and duties (Bonoli, 2005). Lennartz argues that this subgroup of countries has reoriented its welfare state towards the productive, social investment model. In these countries, welfare taxes are lower

than in other countries, but benefits remain generous. It is especially the latter group where 'privatized Keynesianism' has gained ground in recent years. By taking out larger debts (with housing assets as collateral), middle-class households with stagnant incomes are able to sustain their consumption (Crouch, 2009; Mau, 2015). Lennartz (2017) points out that there is synergy between asset-based welfare and social-investment strategies, since both aim to buffer risks from an individual life-course perspective in order to maximize human capital. As a result, dual-income households are common, which facilitates entering into large mortgage debts.

Labor market regulations have furthermore changed, since European welfare states are confronted with a fiercer trade-off between social equality and economic growth, as its low-skilled but well-protected workers have difficulties to remain employed in an increasingly competitive world market. Barbieri (2009) argues that European welfare states have responded to this challenge in broadly three ways. First, there are the liberal-oriented Anglo-Saxon welfare states that allowed for an increase of income inequality (no country representative of this development is included in our study). Second, in the Northwestern European welfare states with a smaller tolerance towards income inequality, the insecurity of employment has increased for a specific subpopulation due to the emergence of a shell of flexible and temporary labor contracts. It concerns especially the Regulated HWR, the Financialized HWR and the State-supported HWR. Finally there is a group of, especially Mediterranean, countries where labor of mainly male breadwinners remained relatively protected and unemployment has increased (the Familialistic HWR and the Financialized-familialistic HWR).

Housing and welfare: a typology

We can now distinguish between five housing-welfare regimes (HWR's) that differ from each other regarding the user-costs of housing and / or the necessity to save. There are three regimes in which the classical trade-off between homeownership and welfare takes a different shape. First, there is the Regulated HWR (Germany and Austria), in which homeownership rates are low and collective pension arrangements

generous (but fairly stratified). Fiscal benefits for homeownership are limited and house prices fairly stable. Furthermore, rents are affordable. In theory, this policy configuration results in a small tenure wealth gap. Second, there is the Familialistic HWR (Greece, Italy, Malta and Slovakia) in which welfare state spending is moderate and especially used for pensions. Furthermore, rental housing is relatively affordable due to rent-free living and family-renting. In this regime, the tenure wealth gap is expected to be relatively small since tenants need to accumulate savings to cater for their welfare needs. Third, in the State-supported HWR (Belgium, France and Finland), homeownership rates are high, and collective pension arrangements relatively small and stratified. Through fiscal welfare, homeownership functions as a pension supplement. Whereas tenants with a low socio-economic status fall below the poverty line due to high rent levels, tenants with a higher socio-economic status can be expected to accumulate financial wealth as pension arrangement. The tenure wealth gap in the State-supported HWR is expected to be larger than in the Familialistic HWR due to a state-indulged reduction of the user-costs of homeownership.

There are two regimes in which the traditional trade-off between homeownership and welfare does not occur due to the introduction of liberal housing finance and social investment strategies in welfare. In the Financialized HWR (the Netherlands and Luxemburg), homeownership rates are high and mortgage debts extensive. These debts are balanced by a very large stock of collective pension wealth. Social investment strategies play an important role in the provision of welfare. Due to the extensive (indirect) homeownership subsidies and house price inflation, homeowners have a large potential for wealth accumulation, whereas tenants have a low incentive to save due to their inclusion in generous welfare state arrangements. We therefore expect the largest tenure wealth gap in the Financialized HWR. Finally, in the Financialized-familialistic HWR (Spain, Portugal and Cyprus), a similar tendency can be observed. However, the public pension system is less generous, which encourages tenants to accumulate savings, which eventually result in a smaller tenure wealth gap. A summary of the housing-welfare regimes is given in Table 5.1, including expectations regarding the size of the tenure wealth gap.

Table 5.1. Overview of housing-welfare regimes, based on various institutional characteristics

		HO rate in sample 2010/11	Mortgage debt to GDP 2012	Rent to income ratio 2010/11	Pension generosity 2010	Pension wealth / nat. inc. 2010	Welfare taxes 2015	Unemployment benefit generosity 2010	Expectations
		Percentage	Percentage	Percentage	Score	Ratio	Percentage	Score	
Regulated	AT	39%	28%	17%	13.6	8.3	38%	10.4	Small tenure wealth gap
	DE	43%	45%	17%	8.7	6.7	33%	10	
State-supported	BE	69%	49%	23%	14.8	6	34%	14	Moderate tenure wealth gap
	FI	73%	44%	24%	12.8	7.6	26%	9.2	
	FR	53%	43%	20%	14.6	8.3	50%	11.1	
Familialistic	GR	62%	39%	27%	14.5	8.4	34%	7.3	Small / moderate tenure wealth gap
	IT	60%	23%	21%	14.3	9.5	30%	5.7	
	MT	83%	12%	1%	x	11.8	18%	x	
	SK	89%	19%	9%	x	8.8	36%	x	
Financialized	LU	73%	49%	24%	x	12.7	24%	x	Large tenure wealth gap
	NL	61%	108%	23%	12.9	12.1	27%	11.9	
Financialized-familialistic	CY	79%	71%	19%	x	10.3	18%	x	Moderate tenure wealth gap
	ES	81%	61%	23%	13.9	10.8	28%	11.7	
	PT	68%	67%	18%	15	7.3	28%	10.6	

Source: (EMF, 2013; EU-SILC, 2016; OECD, 2015; Rogers & Philippe, 2014; Scruggs et al., 2014) .

Data and methods

The empirical work is based on the Household Finance and Consumption Survey (HFCS), conducted by the European Central Bank (ECB), between 2008 and 2011 in 15 European countries. We exclude Slovenia due to a small sample size. The HFCS provides multiple imputations (five in total) to overcome the problem of item non-response on questions about income and wealth. The sample is representative for the general population (ECB, 2013). In total, 62.000 households are included in the dataset. Malta has the smallest sample (843), France the largest (15.006).

The analysis sample is restricted to non-retired households aged between 30 and 67. Moves into homeownership (and thus: tenure choice) generally take place around or after the age of 30 (Angelini et al. 2013). Furthermore, the post-retirement income does not represent the labor market income used for home-buying. Our sample only includes the middle class (the middle four deciles of the income distribution). The lowest thirty percent of the income distribution has in many countries no other choice but renting, whereas the top thirty percent nearly always resides in homeownership. It is the broader middle class that is effectively able to choose between renting and owning, and therefore mostly responds to institutional arrangements.

Micro-level variables

Net worth and financial wealth are used to operationalize the tenure wealth gap. Both are measured at the household level, since household members are assumed to pool resources. Net worth is measured as the sum of savings, investments in bonds and stocks, the value of the owned home and other real estate, minus outstanding mortgage debts. We do not include pension wealth as a micro-level variable, since its meaning and measurement is dependent on the welfare regime (public/private, savings/PAYG). Financial wealth is the sum of savings and investments in bonds and stocks (for tenants equal to net worth). For both variables, multiple imputations provide estimates for each household to deal with missing values. The wealth variables are expressed in Euro's, and as a percentage of the national mean.

We differentiate between the following tenure statuses: tenants (residing in rental housing / rent-free accommodation / tenant-owners), and homeowners (outright and mortgaged). Four percent of our sample consists of tenants who own real estate that is not their primary residence (see Hulse and McPherson [2014] for a conceptualization of dual tenure). Unfortunately, we are unable to distinguish between social and private tenants. However, the organization of the rental sector and the meaning of social housing differ across institutional contexts and is part of the regime typology on the basis of which we explain cross-country differences. Second, we differentiate between mortgaged homeowners and outright homeowners since both categories represent different stages of housing wealth accumulation. Descriptive indices of tenure wealth gaps are based on a simplified tenure variable, in which we only differentiate between tenants and homeowners (tenants and tenant-owners versus mortgaged- and outright homeowners).

To estimate the 'net' effect of tenure on net worth / financial wealth, we control for the following covariates that are associated with both the process of wealth accumulation and tenure choice: gross income (net income is unavailable in the HFCS), educational status of the reference person (primary, lower secondary, higher secondary and tertiary education), immigrant status, age, household size and secondary property ownership.

Methods

First, we provide descriptive information on the size of the tenure wealth gap in each of the 14 countries under observation. The size of the gap is measured as a ratio between the wealth holdings of tenants and homeowners, and as the effect of tenure on net worth / financial wealth, controlling for all above-mentioned control variables (to single out the share of the tenure wealth gap that is the result of housing tenure). Both measures are displayed graphically.

Second, we present country-fixed effects regression analyses, estimating the effect of housing tenure on net worth and financial wealth. In these analyses, we control for all unobserved heterogeneity at the country-level (Möhring, 2012). We estimate the effect of different

institutional arrangements by including an interaction between the housing-welfare regime (Regulated, State-supported, Familialistic, Financialized, Fiancialized-familialistic) and tenure (tenants versus homeowners). Analyses are carried out on five implicates containing imputations and are combined using Stata's multiple imputation package. Due to the structured nature of the HFCS, all results are presented with robust standard errors to allow residuals to vary in a non-random way.

Results

Describing the tenure wealth gap

Table 5.2 shows the size of the tenure wealth gap in 14 Eurozone countries. First, it describes the ratio between tenants and homeowners regarding net worth and financial wealth. Second, it displays the effect size of the tenure effect on net worth and financial wealth per country, which can be considered as the ratio between the wealth holdings of tenants and homeowners, controlling for household-level covariates. In 5.1 and 5.2, both representations of the tenure wealth gap are ordered from high to low.

In all 14 Eurozone countries under observation, homeowners have significantly ($p<0.05$) higher levels of net worth than tenants (see Table 5.2). These results are robust when a wider age range is taken into consideration. Figure 5.1 shows the ratio between tenants and homeowners in terms of net worth and financial wealth. The largest tenure wealth gaps (based on net worth) can be found in Austria, Italy, Malta and Slovakia (in these countries, homeowners own between 6x and 12x the net worth of tenants). Luxemburg, the Netherlands, Cyprus and Spain have the smallest relative difference between tenants and homeowners (between 2x and 4x the net worth of tenants). Interestingly, countries with larger gaps between tenants and homeowners in terms of net worth, are characterized by larger gaps between these groups in terms of financial wealth as well. In countries with small tenure wealth gaps (such as Greece, Belgium, Spain, the Netherlands and Luxemburg), the difference

between tenants and homeowners regarding financial wealth is not significant. This finding provides new, cross-country evidence for the claim that that housing wealth and financial wealth do not operate as 'communicating vessels'. On the contrary, homeowners have more financial wealth than tenants, and accumulate housing wealth on top.

Figure 5.2 shows the size of the tenure wealth gap, after controlling for household-level covariates that are associated with the accumulation of wealth and the entry into homeownership. After controlling for income, age, educational level, immigration background, having received a financial gift, and the ownership of secondary property, the ratio between tenants and homeowners regarding net worth and financial wealth holdings is strongly reduced in all countries under observation. What is left, is the 'net' effect of housing tenure, representing the financial outcome of a tenure choice, *ceteris paribus*. This pattern differs from the pattern presented in Figure 5.1, based on the ratio between tenants and homeowners, due to differences in the socio-economic profile of homeowners (regarding income, education, age and secondary property ownership) between countries. Controlling for household characteristics does not reduce the tenure wealth gap as much as in other countries in Germany, Portugal, Greece and Cyprus. This means that homeownership is less selective of households consisting of older natives with higher incomes and higher educational levels (characteristics that are generally associated with wealth accumulation). In Italy and Finland and Slovakia, the tenure wealth gap is reduced more than in other countries after controlling for household characteristics. This means that homeownership is more selective of household with the 'right' characteristics in relation to wealth accumulation.

The pattern of tenure wealth gaps, based on the effect sizes of the association between housing tenure and net worth / financial wealth (controlling for household characteristics linked with wealth accumulation), shows a clear overlap with the typology of housing-welfare regimes, albeit in a different direction than expected. The largest tenure wealth gaps are found in the Regulated HWR (Austria and Germany), followed by the Familialistic HWR (Greece, Malta, Italy

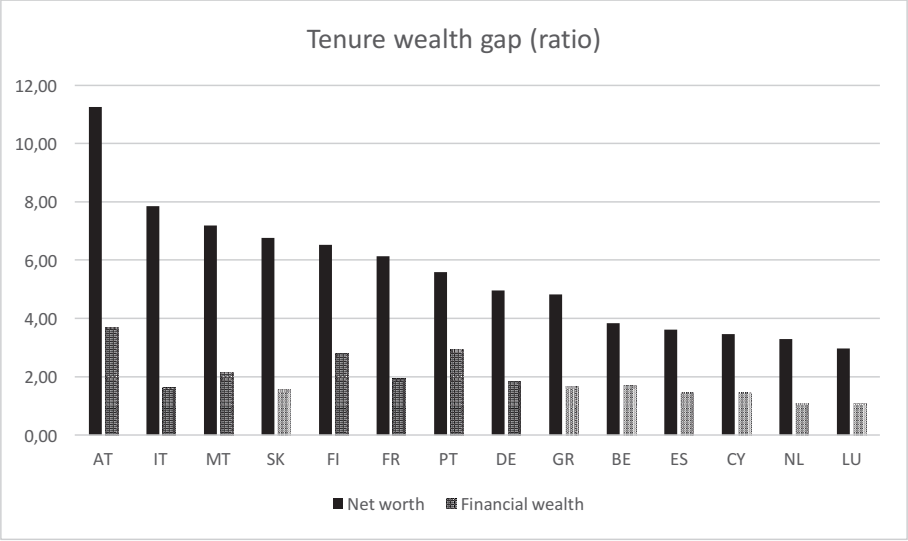
– Slovakia is an exception with a relatively small tenure wealth gap). The smallest tenure wealth gaps can be found in the Financialized HWR (Luxemburg, the Netherlands), followed by the State-supported HWR (Finland, Belgium – France is an exception with a relatively large tenure wealth gap). The Financialized-familialistic HWR takes a middle position. The tenure financial wealth gap is generally larger in housing-welfare regimes with larger tenure wealth gaps. An exception is the Financialized-familialistic HWR with a moderate tenure wealth gap, but the largest financial wealth gap. The smallest tenure financial wealth gap is observed in the Financialized HWR (which is characterized by the smallest tenure wealth gap as well).

Table 5.2. Net worth and financial wealth differences between tenants and homeowners in 14 European countries

	Net worth				Financial wealth				Number of households	
	Ratio	Sig.	Effect size	Sig.	Ratio	Sig.	Effect size	Sig.	Tenant	Homeowner
Austria	11.25	*	4.54	*	3.71	*	2.59	*	195	162
Belgium	3.83	*	0.94	*	1.71		0.13		126	379
Cyprus	3.46	*	1.23	*	1.47		1.85	*	73	308
Germany	4.95	*	2.17	*	1.85	*	0.94	*	325	367
Spain	3.61	*	1.04	*	1.47		1.54	*	226	1202
Finland	6.53	*	0.77	*	2.8	*	0.63	*	409	2217
France	6.14	*	1.21	*	1.96	*	1.07	*	1206	2228
Greece	4.82	*	1.48	*	1.68		0.87		279	416
Italy	7.84	*	1.32	*	1.64	*	0.42	*	592	1028
Luxemburg	2.97	*	0.81	*	1.1		0.03		54	162
Malta	7.19	*	1.34	*	2.13	*	1.32		34	152
Netherlands	3.29	*	0.81	*	1.09		0.11		55	183
Portugal	5.59	*	1.57	*	2.92	*	1.92	*	308	640
Slovakia	6.76	*	1.02	*	1.55		0.23		88	415

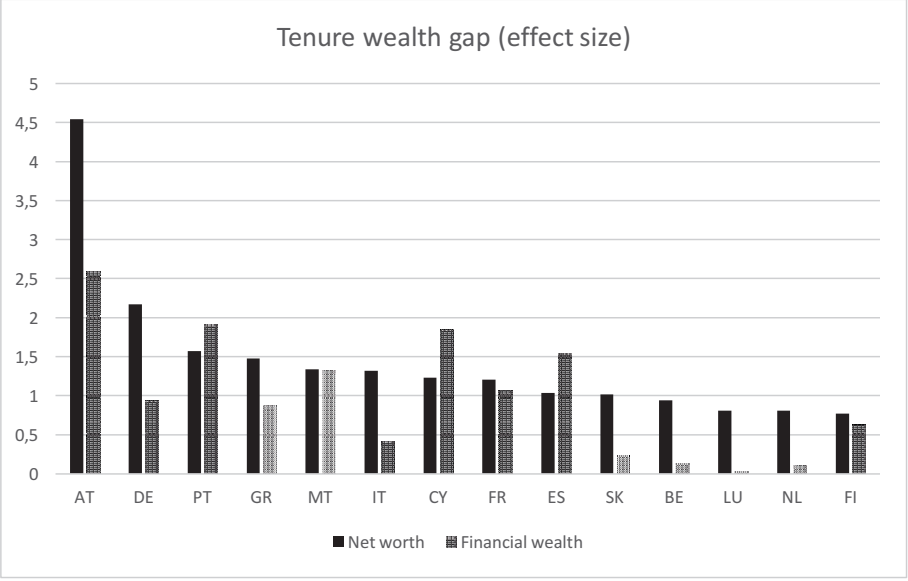
Note: Significance levels are based on p<0.05. Source: HFCS (2016).

Figure 5.1. Tenure wealth gap (net worth and financial wealth) expressed as ratio for 14 European countries.



Note: Non-significant results (p<0.05) are displayed in a lighter color.

Figure 5.2. Tenure wealth gap (net worth and financial wealth) expressed as effect size for 14 European countries.



Note: Non-significant results (p<0.05) are displayed in a lighter color.

Explaining the gap: the household-level

We present two groups of country-fixed effects models to explain household differences in net worth and financial wealth, controlling for all unobserved heterogeneity at the macro-level (see Table 5.3). Model 1.1 and 2.1 presents the association between different housing tenures (tenant, tenant-owners, mortgaged homeowners, outright homeowners) and net worth / financial wealth. In Model 1.2 and 2.2, household characteristics are added (income, age, educational status, migration background, household size, secondary property ownership).

Model 1.1 shows that tenant-owners, mortgaged homeowners and outright homeowners have higher levels of net worth than tenants. Furthermore, it shows that outright owners have higher levels of net worth than mortgaged owners, whereas mortgaged homeowners have higher levels of net worth than tenant-owners. We suggest that tenant-owners (a large majority of them is outright owner) own generally smaller properties (holiday homes, buy-to-let properties etc.). Tenant-owners might however have higher levels of financial wealth than tenants, since they might have rental income from these properties. Furthermore, mortgaged homeowners have less housing wealth than outright owners since part of their home value is covered by a mortgage. Model 2.1 shows that tenant-owners and mortgaged homeowners have more financial wealth than tenants, whereas outright homeowners have significantly higher financial wealth holdings than tenant-owners and mortgaged homeowners. Altogether, Model 1.1 explains 19% of the total variance in net worth, whereas model 2.1 explains only 2% of the total variance in financial wealth.

The addition of household characteristics, associated with wealth accumulation in general, reduces the coefficients of different tenures in Model 1.2 and 2.2, and improves the model fit considerably (from 19% to 30% and from 2% to 8%). Model 1.2 and 2.2 show that net worth and financial wealth are associated with higher incomes, older ages and higher education. Migrant background is associated with lower levels of net worth, but not with lower levels of financial wealth. This finding matches the conclusions of research from the United States (US), reporting lower levels of net worth among lower socio-economic

groups and ethnic minorities (Krivo and Kaufman, 2004). Receiving a financial gift (of at least 5000 Euro) is associated with higher net worth and financial wealth holdings. Furthermore, owning secondary property is associated with higher levels of net worth and financial wealth. The introduction of these variables changes the effect of housing tenure on net worth and financial wealth. Tenant-owners no longer differ significantly from tenants in terms of net worth and financial wealth after the introduction of a variable describing secondary property ownership. Model 1.2 and 2.2 show that mortgaged homeowners have, even after controlling for the above-mentioned household characteristics, higher levels of net worth and financial wealth compared to tenants. However, the difference between tenants and mortgaged homeowners regarding financial wealth is relatively small. We argue that housing wealth crowds out financial wealth during the period of mortgage amortization because mortgage payments partly obstruct the accumulation of savings. The largest accumulation of net worth and financial wealth takes place in the hands of the outright homeowners. They have amortized their mortgage and have – due to their low housing expenses – room to accumulate considerable savings.

Figure 5.3. Tenure wealth gaps (effect sizes) in different housing-welfare regimes.

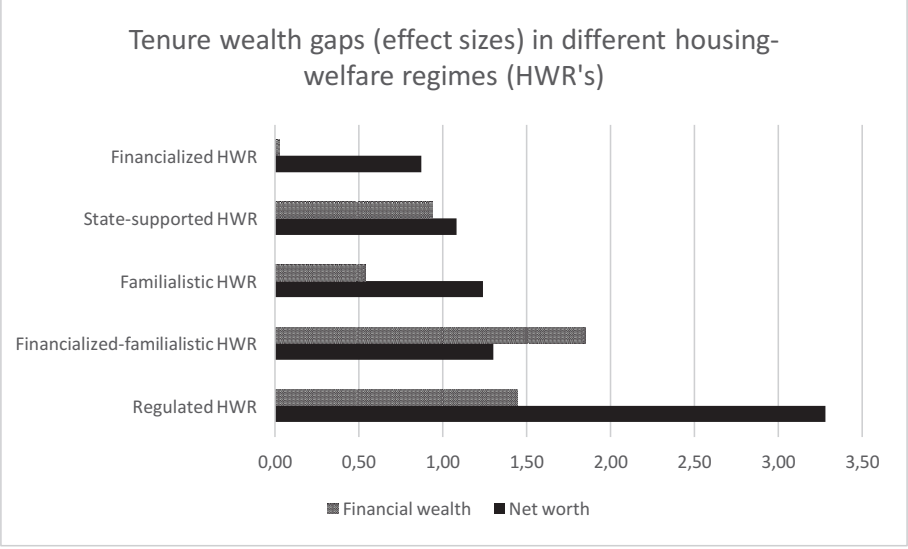


Table 5.3. Country-fixed effects regression analysis of the effect of housing tenure on net worth and financial wealth.

	Net worth		Financial wealth	
	Model 1.1	Model 1.2	Model 2.1	Model 2.2
Tenure				
Tenant	-	-	-	-
Tenant-owner	1.18***	-0.23	1.32**	-0.95
Mortgaged owner	1.55***	1.04***	1.27*	0.40*
Outright owner	2.29***	1.62***	2.46***	1.30**
Income				
Low		-		-
Middle		0.04		0.06
High		0.21***		0.59**
Age				
30-39 (ref.)		-		-
40-49		0.17**		0.261+
50-59		0.32***		0.53***
60-67		0.48***		1.03***
Education				
Primary		-		-
Lower secondary		0.22***		0.84***
Higher secondary		0.39***		1.15***
Tertiary		0.52***		1.41***
immigrant				
No (ref.)		-		-
Yes		-0.12*		-0.06
Household size		0.05+		0.00
Gift received				
No (ref.)		-		-
Yes		0.42***		1.31***
Owning secondary property				
No (ref.)		-		-
Yes		1.32***		1.945*
Constant	0.04	-0.71**	1.02**	-0.57
R-squared	0.19	0.3	0.02	0.08
N	13829	13787	13829	13787

*Note: *** p<0.001, ** p<0.005, * p<0.05, + p<0.10. Source: HFCS (2015).*

Explaining the gap: Housing-welfare regimes

We next explain cross-regime variation regarding the size of the (1) tenure wealth gap and (2) tenure financial wealth gap by including an interaction between the housing-welfare regime and housing tenure in the country-fixed effects models that control for a wide range of household characteristics, presented in Model 1.2 and 2.2 (Table 5.3). A graphical representation of the tenure wealth gap and the tenure financial wealth gap in different HWR's, controlling for household covariates and all unobserved heterogeneity on the country level, is presented in Figure 5.3. In the remainder, HWR's are discussed one by one, by presenting a comparison with the tenure wealth gaps occurring in other regimes.

Table 5.4. Tenure wealth gaps compared across regimes (Regulated HWR as reference).

Housing-welfare regime (HWR)	Net worth	Sig.	Financial wealth
Regulated HWR	3.28	*	1.44
State-supported HWR	-2.20	*	-0.50
Familialistic HWR	-2.04	*	-0.90
Financialized HWR	-2.41	*	-1.41
Financialized-familialistic HWR	-1.97	*	0.41
Control variables not displayed			
Constant	-0.66	*	-0.73
R-squared	0.31		0.07
N	13787		13787

Note: The main effect of tenure is the effect of owning versus renting on net worth and financial wealth for the housing-welfare regime that is the reference category in this analysis (and refers to the effect reported alongside the Regulated HWR). Results are considered significant if $p<0.05$.

The largest tenure wealth gap can be found in the Regulated HWR. Table 5.4 shows that the difference between tenants and homeowners in terms of net worth and financial wealth is significantly larger than in all other regimes ($p<0.05$). This is unexpected since homeownership is not taxed preferentially, and house price inflation has been very limited. Furthermore, rents are moderate due to strict regulations. We argue that the large tenure wealth gap is the result of the nature of homeownership in Germany and Austria. In both countries, homeownership is socially selective due to the conservative housing finance system and low (indirect) government subsidies

on homeownership. Although the selectivity of homeownership is partly controlled for in the model, our income band is still quite broad (deciles 3 to 7) and apparently we do not capture all selectivity. Furthermore, due to stable house prices, housing wealth holdings of homeowners dampened less in this regime compared to others. What sets the countries in the Regulated HWR apart from the other countries is the over-representation of rental housing in urban areas, and a large proportion of small-scale private landlords being active on the rental market. In larger cities such as Vienna, homeownership rates are well-below 20% (Kadi, 2015), whereas homeownership is a majority-tenure in most of the Southern-European cities. In Germany, 60% of rental housing is let out by private individual landlords (Kemp and Koffner, 2014). Private landlords might make smaller gains than in other countries due to strict rent regulations, but their investments are very stable. The rental incomes of private landlords are one of the main explanations of the large financial wealth gaps between tenants and homeowners in the Regulated HWR. Only the Financialized-familialistic HWR is characterized by a larger financial wealth gap ($p<0.05$).

Table 5.5. Tenure wealth gaps compared across regimes (Financialized HWR as reference).

Housing-welfare regime (HWR)	Net worth	Sig.	Financial wealth	Sig.
Financialized HWR	0.87	*	0.03	
Regulated HWR	2.41	*	1.41	
State-supported HWR	0.21		0.91	*
Familialistic HWR	0.37	*	0.51	*
Financialized-familialistic HWR	0.44	*	1.82	*
Control variables not displayed	2.41	*		
Constant	-0.66	*	-0.73	
R-squared	0.31		0.07	
N	13787		13787	

Note: The main effect of tenure is the effect of owning versus renting on net worth and financial wealth for the housing-welfare regime that is the reference category in this analysis (and refers to the effect reported alongside the Financialized HWR). Results are considered significant if $p<0.05$.

The smallest tenure wealth gap is found in the Financialized HWR (the Netherlands and Luxemburg). The difference between tenants and homeowners in terms of net worth is smaller in this regime

than in all others ($p<0.05$), except for the State-supported HWR (see Table 5.5). The countries in the Financialized HWR have promoted homeownership through extensive subsidies or tax benefits and enabled lower socioeconomic groups to enter homeownership through liberal housing finance. In combination with high house price inflation, this should – in theory – boost the housing wealth holdings of homeowners. However, the countries in this regime have the smallest tenure wealth gap observed in Europe. We suggest that the widespread availability of mortgage debt maintains housing affordability in times of inflated house prices, but without contributing to housing wealth accumulation. Since we focus on a rather young population (30-67), homeowners in this regime might – in the long run – outperform their counterparts in other regimes. Interestingly, the financial wealth gap is significantly smaller than in all other countries under observation as well. In other words, homeowners do not accumulate significantly more savings than tenants. We suggest that the high rents impede the ability to save, whereas the generous welfare state reduces the necessity for savings.

Table 5.6. Tenure wealth gaps compared across regimes (State-supported HWR as reference).

Housing-welfare regime (HWR)	Net worth	Sig.	Financial wealth	Sig.
State-supported HWR	1.08	*	0.94	*
Regulated HWR	2.20	*	0.50	
Familialistic HWR	0.16		-0.40	
Financialized HWR	-0.21		-0.91	*
Financialized-familialistic HWR	0.23		0.91	*
Control variables not displayed				
Constant	-0.66	*	-0.73	
R-squared	0.31		0.07	
N	13787		13787	

Note: The main effect of tenure is the effect of owning versus renting on net worth and financial wealth for the housing-welfare regime that is the reference category in this analysis (and refers to the effect reported alongside the State-supported HWR). Results are considered significant if $p<0.05$.

The State-supported HWR is characterized by a smaller tenure wealth gap than the Regulated HWR. However, differences with other regimes are not significant (see Table 5.6). In the countries that are part

of the State-supported HWR, homeownership is promoted through (indirect) subsidies and tax benefits. Homeownership is expected to compensate for low pensions. Although the state-supported expansion of homeownership enables homeowners to accumulate considerable amounts of wealth, the relatively poor coverage of the welfare state encourages tenants to accumulate some wealth as well to cater for their welfare needs. The State-supported HWR therefore takes a middle position in the ranking of tenure wealth gaps across Europe. The financial wealth gap between tenants and homeowners in the State-supported HWR is significantly larger than in the Financialized HWR, but significantly smaller than in the Financialized-familialistic HWR. We suggest that the preferential treatment of homeownership allows homeowners to accumulate more savings in the long run, after the amortization of the mortgage. Moreover, like in the Regulated HWR, small-scale landlordism is relatively common to supplement low and stratified pensions. For example, the HFCS shows that 30% of the homeowners in Belgium owns secondary properties, of which slightly more than 50% is a private landlord.

Table 5.7. Tenure wealth gaps compared across regimes (Familialistic HWR as reference)

Housing-welfare regime (HWR)	Net worth	Sig.	Financial wealth	Sig.
Familialistic HWR	1.24	*	0.54	*
Regulated HWR	2.04	*	0.90	
State-supported HWR	-0.16		0.40	
Financialized HWR	-0.37	*	-0.51	*
Financialized-familialistic HWR	0.07		1.31	*
Control variables not displayed				
Constant	-0.66	*	-0.73	
R-squared	0.31		0.07	
N	13787		13787	

Note: The main effect of tenure is the effect of owning versus renting on net worth and financial wealth for the housing-welfare regime that is the reference category in this analysis (and refers to the effect reported alongside the Familialistic HWR). Results are considered significant if $p<0.05$.

The Familistic HWR is characterized by relatively large tenure wealth gaps. This regime has a significantly ($p<0.05$) smaller tenure wealth gap than the Regulated HWR, but significantly larger tenure wealth gap than the Financialized HWR (see Table 5.7). The differences with

the State-supported HWR and the Financialized-familialistic HWR are not significant. Although the tenure wealth gap might be relatively large in the Familialistic HWR, its meaning is different compared to other regimes, since (housing) wealth should be considered a family rather than a household asset. The Familialistic HWR takes a middle position regarding the financial wealth gap between tenants and homeowners, and does not differ significantly from the State-supported HWR and the Regulated HWR, which indicates that tenants need to accumulate financial wealth to compensate for low pensions.

Table 5.8. Tenure wealth gaps compared across regimes (Financialized-familialistic HWR as reference).

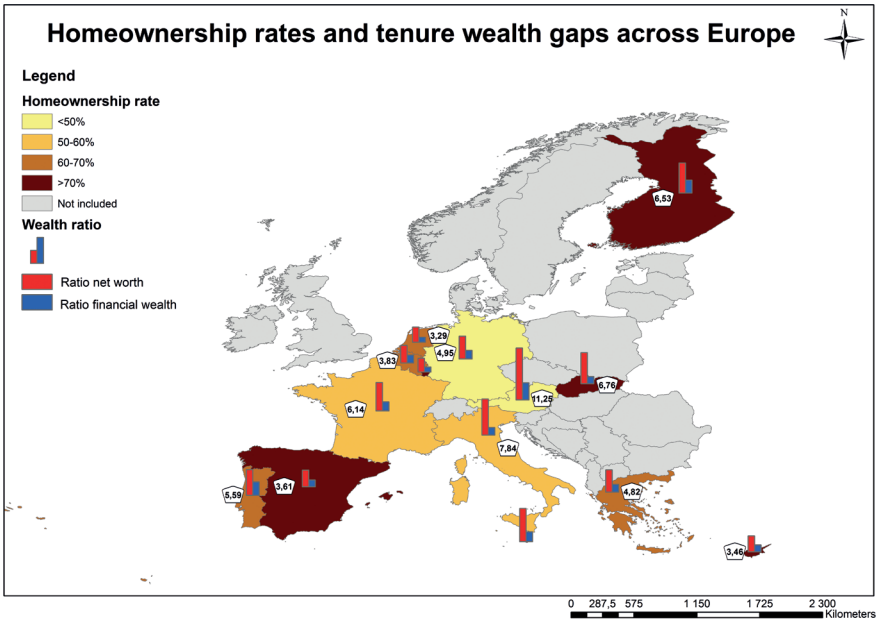
Housing-welfare regime (HWR)	Net worth	Sig.	Financial wealth	Sig.
Financialized-familialistic HWR	1.30	*	1.85	*
Regulated HWR	1.97	*	-0.41	
State-supported HWR	-0.23		-0.91	*
Familialistic HWR	-0.07		-1.31	*
Financialized HWR	-0.44	*	-1.82	*
Control variables not displayed				
Constant	-0.66	*	-0.73	
R-squared	0.31		0.07	
N	13787		13787	

Note: The main effect of tenure is the effect of owning versus renting on net worth and financial wealth for the housing-welfare regime that is the reference category in this analysis (and refers to the effect reported alongside the Financialized-familialistic HWR). Results are considered significant if $p<0.05$.

Finally, the Financialized-familialistic regime resembles both the Financialized HWR, and the Familialistic HWR. It has significantly smaller tenure wealth gaps than the Regulated HWR, and a significantly larger tenure wealth gap than the Financialized HWR (see Table 5.8). The countries in this regime share with the Familialistic HWR that the family has historically played a large role in the provisioning of housing, and with the Financialized HWR the more generous access to mortgage finance, at least before the Global Financial Crisis. The subset of households that has bought the home prior to the introduction of liberal mortgage finance (later than in the Financialized homeownership regime) has profited from considerable house price gains, whereas those who bought after the introduction

of these policy schemes have accumulated considerable debts. Interestingly, the Financialized-familialistic HWR is characterized by the largest difference between tenants and homeowners regarding financial wealth, compared to all other regimes ($p<0.05$). The difference with the financialized homeownership regime, characterized by the smallest financial wealth gap between tenants and homeowners, is very large. We suggest that this is the result of the relatively large share of outright homeownership (of households that bought prior to the introduction of liberal housing finance), which enables them to accumulate considerable financial wealth holdings, and differences in the generosity of the pension system between the two regimes.

Figure 5.4. Map of tenure wealth gaps in Europe



Note: labels display the gap regarding net worth. Source: HFCS (2016).

Conclusion

Homeownership is associated with higher levels of net worth (housing and non-housing wealth combined) and financial wealth (Belsky et al., 2007; Di et al., 2007; Haurin et al., 2002). Theoretically, the gap between tenants and homeowners regarding net worth originates from differences in (1) wealth accumulation preferences, (2) the user-costs of housing and (3) the necessity of savings among tenants and homeowners. We accept the assumption that homeownership is first and foremost part of a life style that is oriented on long-term stability and wealth accumulation in all countries (Keister et al., 2016), whereas the other two factors differ along the lines of welfare states and housing systems. We cannot estimate the impact of the first mechanism on the size of the tenure wealth gap in individual countries. Instead we explain cross-country variations in the size of the tenure wealth gap across Europe on the basis of institutional differences, controlling for micro-level characteristics associated with selection into homeownership. This approach is much simpler than studies that use complex methods to calculate the user-costs of housing in few countries (Haffner and Heylen, 2011), and is able to extend its scope to a wider range of contexts. Furthermore, we focus on the outcomes of differences in the user-costs of housing in different contexts, alongside differences in the necessity to save.

Our findings indicate that, studying a sample of non-retired households headed by persons between 30 and 67 years old, using country-fixed effect regression analyses, homeownership is indeed associated with higher levels of net worth and financial wealth, even a few years after the Global Financial Crisis that reduced homeowners' housing wealth holdings. Net worth differences between tenants and outright owners are larger than between tenants and mortgaged homeowners, indicating that homeowners 'grow apart' from tenants over time, when they amortize their mortgage. Mortgaged homeowners barely differ from tenants in terms of financial wealth, which indicates that housing wealth and financial wealth function as communicating vessels in the period directly after home-buying. Outright homeownership is associated with higher levels of financial

compared to tenants and mortgaged homeowners, since low housing costs after the amortization of the mortgage give room for savings.

The tenure wealth gap shows considerable cross-country variation. However, the pattern is opposite to expectations on the basis of the orientation of the housing system and welfare state. The highest ratio between tenants and homeowners regarding net worth can be found in Austria, Italy and Malta (homeowners have between 6x and 12x the net worth of tenants), the smallest in Luxemburg, the Netherlands, Cyprus and Spain (between 2x and 4x). Our findings show that the gap between tenants and homeowners in terms of financial wealth is generally larger in countries with a larger tenure gap in terms of net worth. This provides new, internationally-comparative evidence for the claim that housing wealth does not crowd-out financial wealth. On the contrary, especially in the case of private landlordism, homeownership contributes to the accumulation of financial wealth.

Cross-national variations in the size of the tenure wealth gap can for a large part be explained on the basis of the configuration of the housing-welfare regime (HWR), albeit in a different fashion than expected. In three HWR's a different form of the 'classical' trade-off between housing and welfare occurs. The latter entails that countries with widespread homeownership do not develop generous welfare states (especially pension systems). In the Regulated HWR, with low homeownership and relatively generous pensions (Germany and Austria), the tenure wealth gap is unexpectedly large. We suggest that private landlordism, which is one of the engines under the large rental sector in these countries, contributes to housing wealth accumulation and also financial wealth accumulation among homeowners. Although the profits are smaller than in other regimes due to rent regulation, gains are considerable due to the stability of rental investments. Studies of wealth and income should have more attention for the consequences of the promotion and nature of private landlordism. The tenure wealth gap is much smaller in countries with high homeownership rates and low pensions. In the State-supported HWR (Belgium, France, Finland), homeownership is supported as pension arrangement through tax benefits (fiscal welfare). Tenants need to accumulate savings to cater for their welfare needs, which

results in a smaller tenure wealth gap compared to the Regulated HWR. In the Familialistic HWR, neither of both tenures is strongly supported by the state, but due to the low state pensions, tenants need to accumulate some savings. However, the meaning of housing wealth is different compared to other housing-welfare regimes, since it concerns a family, rather than a household asset. In two housing-welfare regimes, the classic trade-off between housing and welfare is altered since they have responded to globalization and economic restructuring in a different fashion. These regimes combine high homeownership rates with generous pensions, as their pension funds are able to cover extensive mortgage debts. In the Financialized HWR, liberal housing finance reduces the user-costs of housing (through a prolongation of mortgage loans and house price inflation), which has increased the opportunity for wealth accumulation among homeowners. However, the Financialized HWR is characterized by the smallest tenure wealth gap in Europe. We suggest that this is the result of low amortization among homeowners and high low savings among tenants as a result of high rents and a low necessity to save due to generous welfare arrangements. The balance between outright and mortgaged homeowners is different in the Financialized-familialistic regime, with a tradition of wide-spread outright homeownership and a later introduction of liberal housing finance. Therefore, especially the tenure financial wealth gap is very large in this regime.

Small tenure wealth gaps seem to be matched with problems regarding the affordability of both homeownership and rental housing, whereas large tenure wealth gaps are matched with problems regarding the accessibility of homeownership. Moreover, tenure wealth gaps are smaller in contexts where some form of asset-based welfare (micro- or macro) is incorporated in the welfare state. The surprisingly different pattern of tenure wealth gaps in Europe as could be expected on the orientation of the housing system and welfare state, urges for research into the consequences of second property ownership and small-scale landlordism for income and wealth.

CHAPTER 6

Conclusion

Introduction

Throughout the past fifty years, a vast increase of owner-occupied housing has taken place across the European continent (Angelini *et al*., 2013). In the period directly following World War II, homeownership rates were already relatively high in the Mediterranean countries (Allen, 2006), while Northern European households still predominantly resided in rental housing (Kemeny, 1981). Based on the belief that homeownership contributes to a more stable society (homeownership ties people to their local community and labor market, which allegedly reduces the risk for revolutions and crime, see Engels, [1887] 1970), many European governments have increased the attractiveness and affordability of this type of housing tenure (Ronald, 2008). In Northern Europe, subsidies and tax benefits are used, whereas a tolerance towards informal construction is the main engine behind the growth of homeownership in the Mediterranean countries (Donner, 2000). Moreover, the long-term economic growth and the stable income development as a results of the establishment of more generous welfare arrangements during *les trente glorieuses* (1945-1975) enabled ever larger shares of the population to buy their own home (Ferrera, 2008).

From the 1980s onwards, a paradigmatic shift took place across Europe. The 'market' was supposed to play a more central role in the provisioning of housing (Aalbers, 2015; Mau, 2015). The ideology behind the desirability of homeownership did not necessarily change, but due to a renewed state-market configuration, a larger share of the population has been able to enter homeownership. Generous mortgage lending has allowed households with a lower socio-economic status to become a homeowner at a younger age (Aalbers, 2008; Rolnik, 2013). The expansion of homeownership has consequences for the economy at large and the housing market in particular. From the 1980s until the Global Financial Crisis, starting on the US market for real estate in 2007, housing has functioned as a sponge for international capital, which has driven up house prices tremendously (Fernandez *et al*. 2016). In countries such as the Netherlands, where housing finance became fairly deregulated since

the 1980s (Damen *et al.*, 2016), real house prices tripled, whereas real house prices remained more or less constant in Germany, where housing finance is organized in a more conservative fashion (OECD, 2014).

In the first decade of the 21st century, homeownership rates in continental Europe are higher than at any moment in in the 20th century, which means that more people than ever before are able to accumulate housing wealth. Wealth accumulation is celebrated as one of the central elements of the beneficial nature of homeownership (DiPasquale and Wheaton, 1994). Housing wealth has the potential to be used as collateral for asset-based welfare, in which individuals take over (a part of) the responsibility of the state in welfare provisioning (Doling and Ronald, 2010). This, in return, makes homeowners cheaper citizens for the welfare state. Should we therefore conclude that the state-sponsored expansion of homeownership is successful in spreading wealth into lower socio-economic strata? Not necessarily. Its success is dependent on the ability of homeowners with different life courses and different social backgrounds to turn their housing tenure into an engine of wealth accumulation.

Wealth inequality is increasingly recognized as a separate dimension of socio-economic stratification, driven by other factors compared to income. The upswing in terms of wealth inequality, as documented by Piketty (2014), is considered a social problem across Europe. Whereas the total amount of private wealth in most Western countries right after WWII was around 300% of the national income, this ratio increased rapidly after the financial deregulations that started in the 1980s. Nowadays, ratios of 600% to 700% are not uncommon (Piketty, 2014). The upswing can almost entirely be explained with the absorption of capital by the built environment, which has translated into inflated house prices. This places the government-sponsored expansion of homeownership in a new perspective and thus legitimizes the overarching research question of this dissertation: "*what does the housing wealth distribution look like in European countries with different housing regimes, and how can cross-country variations be explained from (an interaction between) life course factors and institutional factors*?"

In this conclusion, I will first outline the main findings of the four empirical chapters. Subsequently, I discuss the relevance of these findings for the scholarly debates on stratification- and housing studies. Third, I will summarize the implications of the four studies on housing wealth inequality bearing in mind the contemporary policy debate on housing in Europe. Finally, I will sketch out recommendations for future research, based on the shortcomings as well as the strengths and findings of the studies that are part of this dissertation.

Main findings

First of all, this dissertation contributes to a better conceptualization of housing wealth. Previous studies focused on the outcomes of the process of housing wealth accumulation only, by considering housing wealth as the market value of the home minus outstanding residential debts (see Di *et al*., 2007; Appleyard and Rowlingson, 2010). In this dissertation, housing wealth is understood as consisting of six dimensions that reflect the accumulation process itself. This opens up new grounds to study the origins of housing wealth inequality. We differentiate between three static and three dynamic dimensions of housing wealth. The static dimensions (housing tenure, purchase price, initial mortgage debt) determine the level of housing wealth at the moment of purchase, whereas the three dynamic dimensions (mortgage amortization, capital gains / losses, historical transaction costs) determine the development of housing wealth over time. Different socio-economic-, housing-, and spatial policies impact upon these dimensions separately and shape the distribution of housing wealth across social classes and age groups.

The empirical part of this dissertation starts off with an overview of tenure-, housing wealth- and mortgage debt inequality in 16 European countries. In Chapter 2, two birth cohorts (born between 1930-1949 and 1950-1962) are compared regarding housing wealth inequality between different occupational classes (low, middle, high and self-employed). In all the researched countries, the higher

occupational classes possess significantly higher housing wealth than the lower occupational classes. However, cross-country variation is large. The rationale behind the cohort comparison can be found in the different housing market and housing policy circumstances at the moment these cohorts entered the market for owned homes (typically between 25 and 40 years old). The cohort comparison sheds light on the distributional consequences of policy changes that occurred since the 1980s (when the younger cohort entered the housing market). In Chapter 2, 16 European countries are clustered in seven 'housing wealth accumulation regimes', based on the expansion of homeownership until 1980, and the political-economy of housing in the period between 1980 and 2010. Until 1980, Europe could be classified in homeownership societies in the Mediterranean (both capitalist and communist), rental societies in Europe's heartland (both capitalist and communist), and government-sponsored expansion of homeownership in the Northwestern part of the continent. The privatization of social housing after the fall of communism changed the political economy of a sub-set of former communist homeownership and rental societies (Hungary, Slovenia / the Czech Republic, Poland, Estonia). The deregulation of housing finance altered the path followed by a subset of countries in the homeownership-expansion group (the Netherlands, Denmark and Sweden), and Spain (a homeownership society). A sub-set of rental societies and homeownership expansion societies, however, remained fairly regulated after the 1980s (Germany, Switzerland, Austria / France, Belgium), whereas the family remained dominant in a sub-set of Mediterranean countries (Italy, Portugal).

The expansion of homeownership might result both in a more unequal *and* a more equal distribution of housing wealth, depending on the political-economy of homeownership in the country. Object subsidies for affordable homeownership, which are used in the Nordic countries, are associated with lower levels of housing wealth inequality between occupational classes in the older cohort that entered the housing market before the 1980s. A similar argument can be made for the older generation in the post-communist countries that profited from the subsidized construction of affordable (social/ cooperative/ public) rental housing when they entered the housing

market, and the (give-away) privatization of this housing stock after the fall of communism. The liberalization of housing finance, on the other hand, is associated with a more unequal distribution of housing wealth. It allowed households with a lower socio-economic status until the global financial crisis of 2007 to enter homeownership by taking out large mortgage loans. Especially lower-class households prolong their debts into old-age. Ironically, especially in the liberal housing wealth accumulation regime, homeownership does not always function as a vehicle for wealth accumulation.

In Chapter 3, we shift the focus from class-based housing wealth inequality towards life course-based housing wealth inequality. The Chapter is centered on the housing wealth consequences of one of the most common and most critical disruptive life course events in contemporary Europe: divorce. After a divorce, at least one of the partners needs to seek a new home. Previous studies have shown that this is most often a home in the rental sector. However, a majority of ever-divorced people, residing in homeownership during their (first) marriage, is able to enter this housing tenure again before they retire from the labor market. Those who remain in homeownership or re-enter this housing tenure after a divorce, have around 30% lower housing wealth holdings than their married counterparts due to moves into smaller properties and prolonged indebtedness. If divorcees re-partner, the difference with first-time married couples is much smaller. After a divorce, women accumulate less housing wealth than their male counterparts. However, the negative effect strengthens over time for men since dual earnings have become essential to purchase a home and amortize the mortgage, whereas it weakens over time for women since their labor market participation has increased rapidly since the 1970s.

The negative effect of divorce also shows large cross-country variation, as has been proven by comparing ten European countries. The effect is more negative in housing regimes that facilitate a re-entry into homeownership after a divorce. It concerns in the first place countries with moderate homeownership rates, where mortgage finance is readily available, such as Sweden, Denmark and the Netherlands. This allows divorcees with a weaker economic

position to re-enter homeownership by postponing the amortization of the mortgage loan. Furthermore, in these countries, couples with an intact first-time marriage 'grow apart' from divorcees over time since liberal housing finance encourages them to trade up the housing ladder. A small gap between people with divorce experience and those without can be found in conservative welfare states with generous spousal child maintenance payments (for the female partner). In these countries, re-entering homeownership is uncommon for women, whereas those who remain in the former marital home (with the help of alimony payments) are able to continue accumulating housing wealth.

The fourth chapter emphasizes the *process* of housing wealth accumulation. Whereas the first two empirical contributions to this dissertations focus on the accumulated housing wealth in old-age, this chapter tracks the residential mobility of Swedish people born between 1970 and 1975, in order to investigate the impact of their spatial- and housing decisions on the size of capital gains and losses (one of the dynamic dimensions of housing wealth). Whereas Sweden is widely acknowledged as corporatist and universal social-democratic welfare state, it has one of the most liberal-governed housing markets of Europe since the 1990s. As a result of the liberalization of housing finance and the privatization of former public rental housing, Swedish cities have experienced a wave of gentrification and low-income filtering, which has resulted in larger socio-spatial inequality. The residential choices of people with a different social status are the engine of this process of spatial sorting. Households with a high socio-economic status moved into the same neighborhoods. Households with a lower socio-economic status moved into other neighborhoods, since the influx of households with a high socio-economic status in other neighborhoods rendered these locations unaffordable for them. When being a resident in a neighborhood, the residential choices of those who migrate into your neighborhood determine the status of your neighborhood. The influx of new residents with a high socio-economic status is paired with rising house prices. We find that people in the lower income brackets have accumulated significantly less capital gains than people in the higher income brackets in the

period between 1995 and 2010. Moreover, migrants experience lower capital gains than native Swedes. The results of Chapter 4 indicate that lower income groups and people with a migrant background accumulate less capital gains due to their sorting into neighborhoods with relatively low shares of highly-educated residents or relatively high shares of residents with a migrant background. Furthermore, they are more likely to move into neighborhoods with a decreasing social status in the period of residence. In other words: the re-sorting of households through urban space, as a result of multiple decennia of market-oriented reforms on the Swedish housing market, has polarized capital gains when natives and migrants, and lower and higher income groups are respectively compared.

The final empirical chapter of this dissertation elaborates on the connection between housing wealth and financial wealth. Only by comparing the accumulation of housing wealth among different social groups with the accumulation of financial wealth, it is possible to draw conclusions on the impact of housing wealth on the socio-economic stratification at large. If housing wealth and financial wealth function as communicating vessels, homeowners and tenants can be expected to have similar levels of net worth. In that case, it is only stored in different manners. Since homeownership is part of an investive life style, and often subsidized by the state, homeowners have higher levels of net worth everywhere in Europe. Put simply: housing wealth and financial wealth do not operate like communicating vessels. On the basis of this evidence, we conclude that housing wealth inequality between occupational classes (Chapter 2), and between people who experienced a disruptive life course event and those who did not (Chapter 3), is not counterbalanced by a different distribution of financial wealth.

The size of the tenure wealth gap differs between countries on the basis of the orientation of the housing system and the welfare state, which impact upon the user-costs of housing and the necessity to save. Chapter 5 shows that larger tenure wealth gaps occur in countries with low homeownership rates, conservative housing finance and generous (but stratified) welfare arrangements. In these countries, the revenues from private landlordism, result in

larger differences between homeowners and tenants regarding net worth. The smallest tenure wealth gap can be found in countries with moderate homeownership rates, liberal housing finance, homeownership subsidies, and generous welfare states that embraced social investment strategies. Although house price inflation has been considerable in these contexts, the extensive take-up of mortgages has hampered wealth accumulation among homeowners, whereas the high rent levels reduce the opportunity to save for tenants, and the generous welfare state reduces the necessity to save. In countries where high homeownership rates coincide with less generous pension schemes (the classical trade-off between housing and welfare), tenure wealth gaps are moderate since tenants need to accumulate financial wealth to cater for their retirement income. The size of the tenure wealth gap in these countries is dependent on policies that reduce the user-costs of housing and promote homeownership as pension supplement.

Housing wealth and stratification

Together, the four empirical chapters of this dissertation emphasize the importance of housing wealth inequality for understanding the socio-economic inequalities that characterize contemporary European societies. Previous studies on wealth holdings (both financial wealth and housing wealth) show that wealth is distributed much more unequally than income (Appleyard and Rowlingson, 2010; Cowell *et al*. 2012). In the Netherlands, generally perceived as one of the more egalitarian countries in Europe, the highest five percent of the wealth distribution owns a quarter of all wealth in the country (Vermeulen, 2014). The income distribution is much more equal: the ten percent highest earners, earn around four times more than the ten percent lowest earners. Traditionally, individuals occupying high positions in the wealth distribution are not represented in the upper strata of the income distribution: they have their capital 'working for them', as their investments yield returns. They are able to live as rentiers (of fund managers), since their wealth growth generates a constant stream of revenues. Piketty (2014) has shown that the increasing returns on capital, after the deregulation of finance since

the 1980s, are a major engine behind the upswing of wealth inequality in recent decades.

The income distribution is shaped by different mechanisms than the distribution of wealth (Spilerman, 2000). The labor market is the main engine that underlies income inequality. It is therefore that stratification researchers have focused on occupational prestige, and the role of skills, education and institutions in explaining differences in occupational prestige (Erikson *et al*., 1979; Breen *et al*., 2010). Although some wealth is accumulated over the life course when households save what is left of their income after consumption (or amortize the mortgage on their home), inheritances are a main engine under wealth inequality, alongside profits on financial / business investments (Semyonov and Lewin-Epstein, 2013). The empirical chapters of this dissertation show that housing wealth, contrary to some other forms of wealth, is distributed across the lines of the income distribution. Whereas the financial wealth holdings of the upper strata of the wealth distribution that are mainly inherited, housing wealth is generally accumulated over the life course when people amortize their mortgage. Chapter 2 confirms that housing wealth holdings of those from the highest occupational groups are significantly higher than those of the lower occupational groups. As is stated in previous research, housing wealth is the predominant wealth form for 'the masses'. However, households with higher incomes have a higher purchasing power on the market for owned homes, which translates into a larger capacity for housing wealth accumulation.

More importantly, Chapter 4 provides evidence that the housing market might become a very important engine under increasing socio-economic inequality, alongside the labor market (for income) and the financial market (for financial wealth). Swedish households that bought their home at the right moment and the right location are able to make large capital gains, regardless their social background. The generation that had been able to buy the home in the 1980s and early 1990s, when house prices began to rise across Europe (Scandinavia being an exception) finds itself in a profitable position. However, the upswing of socio-spatial inequality caused by neo-liberal urban policies, including a deregulation of housing finance

and a privatization of social rental housing, have made the housing market a more favorable engine under wealth accumulation for higher income groups than for lower income groups. Neighborhoods in Sweden with a highly educated population and a low share of migrants improved their position in the urban hierarchy, whereas neighborhoods with a high share of lower-educated residents and a high proportion of migrants experienced decline in terms of house prices. In the case of Sweden, an example of the previous can be found in Stockholm's elitist villa neighborhood of Danderyd, located at a green edge of the city, whereas an example of the latter can be found in immigrant dense modernist suburbs like Husby. A parallel process of upgrading (e.g. in Danderyd) and downgrading (e.g. in Husby) contributes to increasing levels of socio-spatial inequality. Moreover, in gentrifying areas, like Stockholm's former working class neighborhood, and contemporary hipster paradise Södermalm, residents with a higher socio-economic status profit from increasing house values, whereas further upgrading does not capitalize in the hands of working class residents who generally do not own the home they live in. Sweden is no exception regarding the upswing in terms of socio-spatial inequality. In most European larger cities, processes of simultaneous up- and downgrading have taken place since the 1980s (Tammaru *et al.* 2014). It is therefore very likely that in other countries, the housing market is a similarly-important engine under housing wealth inequality.

Internationally comparative perspectives on income inequality and wealth inequality point at the institutional dynamic within the national political economy to explain cross-country differences. The distribution of post-tax, post-transfer income is heavily shaped by the orientation of the welfare state. In countries with more decommodifying welfare arrangements, that allow people to survive in times of non-participation on the labor market, the income distribution is more equal. Previous research shows that there is no relationship between the level of income inequality in a country and the level of wealth inequality. Whereas the Scandinavian countries can be considered as egalitarian in terms of income due to a corporatist wage-setting system and state redistribution, their

wealth distributions belong to the most unequal in Europe (Skopek *et al.*, 2014). Both its corporatist nature (large family-owned businesses with limited competition) and the full-fledged deregulation of the financial sector since the 1980s have contributed to this outcome. The empirical results of this dissertation suggest that housing wealth is shaped by different mechanisms than income and financial wealth, and is therefore affected by different institutional arrangements, especially housing- and spatial policies. Chapter 3 illustrates that the housing wealth consequences of a divorce are mitigated by different institutional arrangements than those that mitigate the risk of moving out of homeownership. Whereas welfare state arrangements are associated with the possibilities for re-entering homeownership or remaining in homeownership, the housing regime determines how much housing wealth, individuals with divorce experience can accumulate. In countries with liberal housing finance and a 'dynamic' housing market, the housing wealth consequences of a divorce are stronger, since the prolongation of mortgage debt allows more divorcees to re-enter homeownership, whereas it enables those with an intact first-time marriage to trade up the housing market (which increases the gap).

Housing wealth and housing studies

The rise of homeownership

The academic field of housing studies is traditionally pre-occupied with housing tenure. Chapters 2 and 3 emphasize that housing wealth inequality and tenure inequality are related, but shaped by different factors. Within housing studies, the growth of homeownership since WWII is widely documented (Angelini *et al.*, 2013; Barlow and Duncan, 1994). In the Mediterranean countries, homeownership became almost universal due to a lenient stance towards informal self-construction (Allen, 2006), whereas government subsidies are the main engine behind the increase of homeownership in the Scandinavian countries (Bengtsson *et al.*, 2013). In the former communist states in Central and Southeastern Europe, homeownership rates increased rapidly after the revolutions of 1990, when formerly public rental housing

was privatized (Stephens *et al.*, 2015). In much of Western Europe, liberalized housing finance became the main engine of increasing homeownership rates since the 1980s (Aalbers and Christophers, 2014). The attractiveness of homeownership can only be considered vis-a-vis the position of rental housing. The costs and benefits of rental housing versus homeownership display large cross-country variation (Rohe *et al.*, 2013) and have changed in favor of homeowners in most countries since the 1980s. It is not a coincidence that the existence of a unitary rental market, in which regulated rental housing (cost-rental) is available to the entire population, is often matched with lower homeownership rates (Hoekstra, 2009; Kemeny, 1981). However, residing outside homeownership became increasingly considered as problematic in recent years. For example, the lower homeownership rates among migrants are considered as part of their disadvantaged position (Gyourko and Linneman, 1997; Santiago *et al.*, 2010). Furthermore, moves out of homeownership after a disruptive life event are problematized as obstruction to wealth accumulation. Since the end of the 1990s, homeownership is increasingly studied as collateral for asset-based welfare (Doling and Ronald, 2010; Watson, 2009).

Homeownership and wealth accumulation

The implicit assumption made by antagonists of homeownership expansion, is that more households are able to accumulate wealth in a country with high homeownership rates. Chapter 2 nuances this assumption. It shows that different models of homeownership expansion generate different patterns of housing wealth inequality between occupational classes.

Generally, housing wealth inequality is larger in countries with high homeownership rates, since a larger part of the lower middle- and working class is residing in homeownership, who generally reside in smaller and cheaper dwellings than their upper class counter parts. . However, housing wealth inequality is found to be limited in countries where housing consumption is de-coupled from the labor market income. Chapter 2 mentions three instances. First, housing wealth inequality is mitigated when state subsidies are

the driving force behind the expansion of homeownership. Second, housing wealth inequality is smaller in countries where public rental housing, distributed on the basis of need, is privatized and the material benefits materialize in the hands of the former tenants, which is the case in many Northeastern European countries such as Poland and the Baltic States. Third, housing wealth inequality is mitigated by familialism, since family members pool resources in order to generate economies of scale. These economies of scale couple the collective family income rather than the individual labor market income to housing consumption. Although this results in a somewhat more equal distribution of housing wealth, it is known to be related to other housing-related issues like a delayed entry into homeownership and overcrowding (Allen, 2006) (with Italy as prime example).

Chapter 2 shows that an expansion of homeownership by means of liberal housing finance exacerbates housing wealth inequality. It allows households with a lower socio-economic status to enter homeownership by taking out large loans. Since the amortization of the loan is in these contexts not required, many homeowners do barely accumulate housing wealth. Tenure inequality and housing wealth inequality are mitigated by different institutions, as is shown in Chapter 3. Previous research points out that moves out of homeownership are common after a divorce due to the reduced economies of scale, especially for women (Dewilde, 2008; Dewilde and Stier, 2014). Especially the role of welfare state arrangements is mentioned as an institutional factor that impacts upon the odds of moving out of homeownership after a divorce. Chapter 3 points out that divorcees that remain in homeownership or re-enter this tenure, accumulate less housing wealth than first-time married couples. It is however not the welfare state, but the housing regimes that determines the size of the gap between divorcees and first-time married couples in terms of housing wealth. In more liberally governed housing markets, more divorcees are able to remain in homeownership due to the accessibility of mortgage finance. However, they are less able than first-time married couples to amortize their loan, whereas the latter group uses mortgage finance to further climb the housing ladder within homeownership.

The relationship between housing systems and the affordability of housing in different tenures has extensively been discussed within the academic literature (Dewilde and De Decker, 2016; Kemeny, 1981; Lind, 2001). The concept of tenure neutrality describes a situation in which the choice between rental housing and homeownership has no consequences for the housing costs. In some countries (especially Sweden), the concept is used as guiding principle for the formulation of housing policies, while for other countries it is used as an analytical tool to estimate the advantageous position of homeownership (Haffner, 2003; Lundqvist, 1987). Chapter 5 advances notion of tenure neutrality by comparing the net worth of tenants and homeowners. It builds on the user-costs of housing approach that decomposes the housing costs for homeowners in three components: mortgage amortization, interest payments and capital gains / losses (Haffner and Heylen, 2011; Quigley and Raphael, 2004). User-costs for tenants consist of the rent only. Tenants accumulate wealth by saving, whereas homeowners accumulate wealth by saving, the amortizing their mortgage and accumulating capital gains. Homeowners generally accumulate more wealth than tenants, even controlling for their income level. This difference is partly due to life style differences: homeownership is part of a more stable, investment-oriented life style. However, cross-country differences in the gap between tenants and homeowners regarding net worth are the outcome of differences in the housing system and welfare state. In some countries, homeownership is treated more preferentially than in others, and in some countries housing assets play a more important role in the welfare state than in others. The countries that have pursued 'tenure neutral policies' have mainly tried to give lower middleclass households a choice between renting and owning through a liberalization of housing finance (Grundström and Molina, 2016). It concerns a group of countries that has simultaneously marketized its large social rental sectors and introduced social investment strategies in its welfare state (Lennartz, 2017). Surprisingly, in these countries, the gap between tenants and homeowners regarding net worth is very small. Housing wealth accumulation is very limited among (younger) homeowners due to prolonged amortization periods. Financial wealth accumulation

among tenants is limited due to high rents and a low necessity to save as a result of generous welfare state benefits. In these 'tenure neutral' countries, the tenure wealth gap can be expected to increase with age, as homeowners are expected to amortize their loan. Whereas the increasing housing costs of tenants materialize as wealth in the pockets of their landlords, part of the housing costs of homeowners materializes in their own pockets as housing wealth. Although tenure neutral policies might result in an equal choice between renting and owning, they are not likely to contribute to more equal outcomes between tenants and owners in terms of wealth accumulation.

Together, the empirical chapters of this dissertation revitalize the idea of the existence of housing classes. The notion of housing classes is introduced by British housing scholars from the 1970s and 1980s, arguing that the traditional social class cleavages would eventually be replaced by housing market cleavages (Edel, 1982; Saunders, 1984; Thorns, 1981). Especially in times of increasing house prices, it becomes very difficult for tenants to enter homeownership, whereas those who already reside in homeownership (especially higher class households) can more easily acquire buy-to-let properties. Chapter 2 shows that instead of a tenure cleavage (as suggested by Edel, Saunders and Thorns), a housing wealth cleavage has become more central. The expansion of homeownership has decreased tenure inequality, since it allowed more working- and lower-middle class households to enter homeownership. Certain institutional models of homeownership expansion have however caused increasing levels of housing wealth inequality. Therefore, housing wealth might mark one of the major cleavage lines in contemporary European societies. Chapter 4 shows that there is evidence that housing classes are not a simple derivative from socio-economic inequality. However, income inequality and housing wealth inequality are interrelated. One share of housing wealth inequality can be explained by differences in income at the moment of purchase. Those with higher incomes can buy larger and more expensive properties and accumulate in the long run higher levels of housing wealth. Another share of housing wealth inequality can be explained by capital gains and losses occurring after the moment of purchase. Evidence from Swedish cities between 1995

and 2010 indicates that changes in the neighborhood composition regarding the share of migrants and highly-educated residents are the main mechanism behind capital gains, in a period in which the country experienced a severe increase of socio-spatial inequality. In case they bought a home at the 'right moment' at the 'right location', people from different social backgrounds were able to profit from considerable capital gains. However, higher-income groups are more likely to profit, since the influx of this social group triggers a positive house price spiral. In other words, the housing market is one of the major engines under new societal cleavages, albeit in a different fashion than previously assumed.

Policy implications

Piketty's (2014) influential study on wealth inequality has fueled political debates on this topic across Europe. It is recognized that wealth holdings increasingly impact life chances, and that wealth inequality might adversely affect those that belong to the lower socio-economic strata. Whereas the European political left traditionally focused on the redistribution of disposable income to accomplish a socially just society, countering wealth inequality starts to play a much more prominent role in contemporary left-wing ideological narratives (De Kam, 2014). For decades already, the spread of wealth to the lower socio-economic strata has been at the forefront for liberal parties, and forms the ideological legitimation of the financial deregulations of the 1980s that have resulted in the current distribution of wealth as described by Piketty (Hay, 2009).

Tackling the issue of the extremely skewed distribution of wealth is complicated, since it concerns a footloose resource. The lifting of restrictions on the movement of capital as part of the liberalization of financial markets limits the effectiveness of national solutions like a Tobin tax (tax on financial transactions, named after Nobel Prize winner James Tobin). In the policy debate, it is broadly overlooked that the growth of capital relative to the national income is mainly driven by an upswing in housing wealth. It might be more feasible to tackle inequality regarding housing wealth (the largest source of wealth for a majority of the households in Europe) than inequality regarding

financial wealth (with an undeniably more skewed distribution). Housing wealth is directly linked to a non-movable object of real-estate, although the financial products to finance the property might be sold on a footloose market.

The empirical chapters of this dissertation point at four mechanisms that explain why housing wealth inequality is larger in some European countries, as compared to others. First of all, rising house prices increase the potential for an upswing in housing wealth inequality. Rising prices namely allow housing market insiders to use their capital gains to climb up the housing ladder, while it encourages prospective homeowners to enter the market. The upswing of house prices across Europe is linked to the expansion of housing finance, which as a follow-up on government subsidies on homeownership, reduces the user-costs of housing and therefore does not substantially alters the long-term affordability of homeownership. Put simply, it causes a similar number of people bidding on a similar number of properties with a larger budget due to the increased loan-to-income ratio.

Second, the increase of mortgage debt is associated with an upswing of housing wealth inequality. Liberal housing finance has enabled lower-middle class households to enter homeownership by keeping their housing costs affordable through prolonged indebtedness. On the contrary, the upper-middle class is able to amortize the mortgage more quickly and under more favorable conditions. The combination of structurally higher house prices and higher mortgage debts tie households more strongly to the financial market, on which they rely in order to finance their housing consumption. The larger inequality between homeowners in countries with liberal housing finance might translate to higher levels of wealth inequality in general, when the large mortgage debts of the lower-middle class appear as assets on the balance sheet of the upper few percent of the wealth distribution.

Third, the increasing levels of socio-spatial inequality that many large European cities have witnessed since the 1980s are a driving force behind housing wealth inequality. The residential moves that are associated with the realization of a mortgage market-based sorting of individuals over urban space, generate strongly positive

house price developments in gentrification neighborhoods and neighborhoods with a high socio-economic status, whereas they generate a negative price spiral in neighborhoods with a lower socio-economic starting position or a high share of migrants. Locally-based and government-sponsored urban growth coalitions to attract international investments and highly-skilled labor has facilitated the increase of socio-spatial inequality, and consequently housing wealth inequality. Fourth, the upswing of income inequality, and the surge of instable employment are acknowledged throughout the empirical part of this dissertation as a mechanism behind increasing levels of housing wealth inequality. When the income distribution is polarized, the purchasing power on the housing market is polarized as well. The income level and stability namely determines the size of residential loans that banks are willing to provide, dependent on the national institutional framework. Therefore, the income maximizes the initial purchase price of the dwelling. In countries with a more equal income distribution, those with moderate incomes can buy more expensive properties, and consequently accumulate more housing wealth, which eventually mitigates housing wealth inequality.

If rising house prices, an upswing in mortgage debts, a surge of income inequality and an increase of socio-spatial inequality are the mechanisms that have contributed to current levels of housing wealth inequality, which policy measures are then suited to counter housing wealth inequality? A re-regulation of housing finance will most likely temper house price developments, mitigate house price volatility and reduce indebtedness. As a result, homeownership will become more socially selective (outside the reach of most lower-middle class households). The consequences of such a strategy can be assessed by taking a look at the German-speaking countries, where a conservative housing finance system (and incentives to invest in rental housing) has existed for decades. Although Chapter 2 shows that housing wealth inequality is indeed much smaller than tenure inequality in these countries, Chapter 5 shows that the tenure wealth gap in the German-speaking countries is among the largest in Europe. Those in rental housing are unable to accumulate as much savings as their counterparts in homeownership accumulate in housing

wealth due to an over-representation of the previous tenure in urban environments and an over-representation of the latter tenure in rural surroundings. Furthermore is the tenure wealth gap larger in these countries due to investments of homeowners in (urban) rental housing. The historical example of decommodified homeownership in the Nordic countries in the decades following WWII, proves that a conservative housing finance system can co-exist alongside a large expansion of homeownership and a limited amount of housing wealth inequality (Bengtsson *et al*., 2013; Hedin *et al*., 2012). State subsidies for homeownership allow particularly lower-middle class households to enter homeownership without becoming heavily leveraged with debt. It contributes directly to a more equal distribution of wealth, without linking individuals to the global financial market, where the debts of lower socio-economic groups are transformed into assets of the rich. Chapter 4 shows that capital gains are a major source of housing wealth inequality in the Swedish context, and most likely in other European countries that experienced a comparable surge in house prices after the liberalization of housing finance as well, such as Denmark, the Netherlands, Ireland and the UK (Schwartz and Seabrooke, 2008). The taxation of capital gains functions as a hedge against speculation, and socializes housing market gains, but is absent in nearly all European countries.

The socio-spatial polarization that has contributed to the increasing levels of housing wealth inequality is partly the outcome of a reorientation of local authorities in the sphere of spatial planning (Tasan-Kok and Baeten, 2011). Gentrification research has shown how the upgrading of neighborhoods has become increasingly state-led since the 1990s (Uitermark *et al*. 2007). Local authorities facilitate – or even organize – investments in centrally-located neighborhoods with the potential to become an attractive urban living environment for high-skilled (international) knowledge workers. The use of public funds is generally legitimized by the ideology that attracting 'talent' will increase the city's position in the urban hierarchy, which will eventually benefit the vulnerable population as well. Evidence from around Europe proves that state-led gentrification results in a more market-based sorting of individuals over urban

space, even when it does not come accompanied by direct forms of displacement (Tammaru *et al.*, 2015). Both local and national urban and regional planning initiatives can contribute to a reversal of this trend. Cities have policy instruments to accomplish a diversification of the housing stock in terms of tenure and house size. The creation or preservation of cost-rental housing in popular neighborhoods is one way in which local authorities can tackle the increasingly market-based spatial distribution of different classes and ethnic groups. Selective investments in the built environment have the capacity to alter housing market processes themselves. Strengthening neighborhoods with a consistently low socio-economic status might result in an influx of wealthier residents and contributes to wealth accumulation of lower-middle class homeowners. Although such a strategy might yield positive outcomes in terms of housing wealth equality, experiences from across Europe point out that recent government interventions are often unable to prevent a total change of the population afterwards. Hence, state-led gentrification is often criticized for contributing to socio-spatial inequality. Therefore, caution is needed when market pressure is used to promote socially just outcomes.

Finally, changes in the distribution and stability of income have an impact on the possibilities for housing wealth inequality and socio-spatial inequality through the purchasing power on the housing market. Whereas housing policies and spatial planning policies are able to counter the tendency of increasing housing wealth inequality that arises from the housing market, only welfare state policies can counter the increase of housing wealth inequality that arises from the labor market. Globalization and welfare state retrenchment are mentioned as the main causes behind the U-turn regarding the development of the income distribution in the Western European welfare states (Alderson and Nielsen, 2002; Harrison and Bluestone, 1990). Under pressure of increased international competition, one group of countries allowed the incomes of low-skilled workers to decline, whereas their employment became insecure in others (Bonoli, 2005). The approach of welfare states towards new social risks, like divorce, single parenthood and repetitive unemployment,

has a large impact on housing wealth accumulation among those who experience these negative life course events, is shown in Chapter 3. Housing wealth inequality can be reduced when welfare state policies foster a more even distribution of income in a society and stabilize the income over the life course by normalizing permanent labor contracts and providing social protection against old and new social risks. After all, a stable and sufficiently high income is needed to be granted a mortgage to enter homeownership. Such welfare state reforms would especially be beneficial for younger birth cohorts and lower socio-economic groups that are most severely hit by the current wave of globalization and welfare state retrenchment.

The most important message for policy makers might be that the current issue of housing wealth inequality cannot be solved through the implementation of new housing policies alone. It is a combination of labor market, spatial planning, financial and housing policies that might be able to counter the upswing of housing wealth inequality that took place from the 1980s onwards, in the long run. Current levels of housing wealth inequality that arise from large housing debts among certain social groups will disappear when incomes outpaces house price inflation in the long run. Therefore, it is however necessary to radically alter the current 'contract between capital and labor' in most of Europe.

Across the continent, the expansion of homeownership is legitimized by the idea that it is beneficial when wealth penetrates to lower socioeconomic strata. Although this dissertation is very critical, it should not be read as a criticism against this idea *an sich*. The main argument is that there are different strategies in which the state is able to stimulate homeownership, with all their own distributional outcomes regarding housing wealth. In other words, if a penetration of wealth into lower socio-economic strata is the main policy aim, a strategy that results in a more equal distribution of housing wealth might be more suited to do so. Another reason to question to wealth consequences of the expansion of homeownership, is the effect of this process on the wellbeing and welfare of the lower- and middle class. When the expansion of homeownership co-occurs with a retrenchment of the welfare state, households need more

wealth to cater for their own welfare needs. It is debatable whether the expansion of housing wealth counterbalances the reduction of transfer capital (social wealth) for the lower socio-economic groups, and whether a one-dimensional wealth portfolio (in which housing wealth is by far the largest source of wealth) is suited to do so.

Limitations: a new research agenda?

This dissertation aims to contribute to a new research agenda on housing wealth inequality. In the introduction, housing wealth is decomposed into different dimensions. The housing tenure, purchase price and initial size of the mortgage determine housing wealth holdings at the moment of purchase, whereas the mortgage amortization, capital gains and losses, and historic transaction costs determine how the housing wealth holdings evolve over time. Housing wealth inequality is affected by institutions that (sometimes in an opposite fashion) impact upon these dimensions. In the empirical chapters of this dissertation, various theoretical links are established between institutional arrangements and different dimensions of homeownership. However, the internationally comparative surveys that are the main data sources for this dissertation only contain reliable information on total housing wealth holdings, and sometimes residential debts. In three chapters, housing wealth (the sum of all dimensions) is therefore used as the outcome variable. However, the international comparisons that are made in Chapter 2, three and five provide evidence for the impact of institutional arrangements on different dimensions of housing wealth. Two dimensions of housing wealth are studied in isolation: mortgage debts and capital gains and losses. In Chapter 2, mortgage debt inequality between occupational classes is shown for seven housing wealth accumulation regimes in Europe. To properly evaluate its impact on housing wealth inequality, a dynamic (longitudinal) perspective is needed, in which mortgage amortization is taken into account alongside the initial size of the mortgage and the current market value of the dwelling. Chapter 4 studies the accumulation of capital gains over time, during a 16-year period. Since this study is carried out in a non-international comparative fashion, it does not reveal the impact of different

approaches to housing and welfare on housing wealth inequality generated by differences in capital gains. However, it does show the impact of local and regional housing market dynamics that are impacted upon by the institutional context. In that respect, Sweden can be considered a critical case. Since the 1990s, it has one of the most liberal-governed housing markets in Europe. Altogether, the results presented in this dissertation urge for more studies that research housing wealth inequality from a dynamic perspective, taking into account its accumulation process over time by using an internationally comparative research design, in order to reveal the impact of different institutional arrangements on the dimensions of housing wealth.

The studies that are part of this dissertation mainly have an international-comparative nature. By taking such a perspective, a view on individual agency sometimes disappears. It is important to keep in mind that it is individual behavior, motivated by different values and interests, which impacts upon the accumulation of (housing) wealth. In Chapter 2, it is shown that the social selectivity of homeownership has an impact on the distribution of wealth across occupational classes. Due to its descriptive nature, it is impossible to fully control for other factors that are associated with tenure choice and wealth accumulation. In Chapters 3 and 5, the selection of individuals into homeownership is assumed to be unproblematic in order to focus on the impact of institutional factors on the relationship between respectively divorce and wealth accumulation and tenure and wealth accumulation. However, one can assume that housing wealth, divorce and re-partnering are linked. For example, those with more (liquidated) housing wealth are more attractive partners and tend to re-partner more often. Similarly, the preference for renting or owning the primary residence might be associated with a bunch of individual preferences and characteristics that impact upon the accumulation of wealth as well. The above-mentioned selection issues do not play a central role in this dissertation due to the focus on explaining cross-country differences. Although these issues of selection do not have a large impact on the validity of the analyses, these individual-level characteristics might be mechanisms behind housing wealth

accumulation that are thus far overlooked. Longitudinal analyses with e.g. event-history models are able to overcome this shortcoming of the current dissertation.

Housing wealth inequality is a generational experience, as is shown in Chapter 2. Households that are exposed to different socio-economic, urban and housing policies, face different opportunities for the accumulation of housing wealth. The second and third chapter focuses on a population born before the year 1963. The youngest members of this cohort are the oldest ones that are exposed to the deregulation of housing finance and a more market-oriented approach to housing. However, additional research is needed to housing wealth inequality among younger cohorts since they are far stronger affected by the flexibilization of the labor market and the financialization of housing. Whereas house price inflation has capitalized into housing wealth for birth cohorts that bought into the market for owned homes during the process of liberalization, they translate into affordability issues for the younger birth cohorts. A similar argument can be made for tenants. Whereas the user-costs of housing have generally decreased for homeowners due to house price inflation, they have increased massively for tenants when rents are coupled to property prices. Due to the flexibilization of the labor market, it is increasingly difficult for younger households to obtain a mortgage to enter homeownership, which excludes them from wealth accumulation through homeownership. Future research should investigate whether the extreme advantageousness of homeownership regarding wealth inequality should be considered a period effect – and a direct result of the increase of socio-spatial inequality and an upswing in house prices – or a structural phenomenon, that is part of a new socio-economic order.

The impact of institutional arrangements on socio-economic outcomes is generally considered at the national level. Welfare state research shows that national social policies, such as unemployment benefits schemes, impact upon the poverty rate on the national level. Chapters 2, 3 and 5 in this dissertation follow a comparable approach by assessing the impact of different national systems of housing provisioning, housing finance regulations and welfare states impact

upon housing wealth inequality. However, the housing market, which is one of the main engines of housing wealth inequality, is organized much more locally. Over the past 20 years, the differences in house price development between the bigger metropolitan regions and small and medium-sized cities has become very large in many European countries (notable exceptions are Germany and Belgium), with the latter lagging behind. Moreover, housing busts and booms are mostly local phenomena. Local house price developments are partly the outcomes of physical interventions, led by local government bodies. The privatization of social housing or urban restructuring are but two examples of these strategies. Future research would benefit from a sub-national approach to housing wealth inequality. Which local urban coalitions contribute to increasing levels of housing wealth inequality, and which ones succeed in mitigating the gap?

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Nederlandse samenvatting

Inleiding

In de afgelopen vijftig jaar heeft het eigen woningbezit een snelle opmars gemaakt in Europa (Angellini et al., 2013). In de periode direct na de Tweede Wereldoorlog was het eigenwoningbezit al wijdverspreid in de landen aan de Middellandse zee (Allen, 2006), terwijl het merendeel van de Noordwest Europese huishoudens nog steeds in een huurhuis woonde (Kemeny, 1981). Gebaseerd op het geloof dat eigenwoningbezit bijdraagt aan een meer stabiele samenleving, waarin mensen een aandeel hebben in hun omgeving, hebben veel overheden de aantrekkelijkheid en betaalbaarheid van de eigen woning vergroot (Ronald, 2008). Eigenwoningbezitters zouden meer gebonden zijn aan hun lokale gemeenschap en arbeidsmarkt, het als vermeend effect dat de kans op revoluties en geweld in een samenleving met veel eigenaar-bewoners lager ligt (Engels, [1887] 1970). In de decennia na WOII is het eigenwoningbezit opgestuwd door subsidies en fiscale voordelen in Noordwest Europa, terwijl het door de vingers zien van semilegale zelfbouw de motor is achter de groei van het eigenwoningbezit in Zuid-Europa. De toename van het aantal eigenaar-bewoners is niet alleen het resultaat van woonbeleid. De uitbouw van de welvaartsstaat en de daarmee gepaard gaande economische groei en stabiele inkomensontwikkeling gedurende *les trentes glorieuses* (1945-1975), heeft ervoor gezorgd dat een koopwoning in het bereik is gekomen van een steeds groter gedeelte van de bevolking.

Vanaf de jaren tachtig heeft een paradigmatische aardverschuiving plaatsgevonden in het sociale- en woonbeleid in Europa. Vanaf dat moment is de bouw en allocatie van woningen meer en meer aan 'de markt' overgelaten (Aalbers, 2015; Mau, 2015). De grotere rol van de markt is niet het resultaat van een veranderend idee wat betreft de wenselijkheid van een toename van het aantal koopwoningen, maar het gevolg van een veranderende configuratie van 'de staat' en 'de markt'. Met name in Noordwest Europa heeft een ruimhartige verstrekking van hypotheekleningen huishoudens met een lagere sociaaleconomische status op een jongere leeftijd de mogelijkheid

gegeven om een koopwoning te bemachtigen (Aalbers, 2008; Rolnik, 2013). De uitbreiding van het eigenwoningbezit heeft consequenties voor het functioneren van de economie in het algemeen en de woningmarkt in het bijzonder. Vanaf de jaren tachtig van de twintigste eeuw tot de economische crisis van 2008, die begon op de woningmarkt van de VS, heeft bewoonbaar vastgoed (woningen en appartementen) gefunctioneerd als een soort spons voor internationaal kapitaal op zoek naar een winstgevende bestemming. In combinatie met een deregulering van de hypotheekmarkt, heeft dit woningprijzen enorm opgedreven (Fernandez et al., 2016). In een land als Nederland, waar al vroeg een heel liberaal hypotheekregime tot stand is gekomen, zijn reële woningprijzen verdrievoudigd sinds de jaren tachtig van de twintigste eeuw (Damen et al., 2016). In Duitsland, waar het hypotheekregime conservatief is gebleven, zijn de voor inflatie gecorrigeerde woningprijzen min of meer gelijk gebleven (OECD, 2014).

In het eerste decennium van de 21e eeuw is het eigenwoningbezit op het Europese continent meer wijdverspreid dan op welk moment in de 20e eeuw dan ook. Dit betekent dat een groter deel van de bevolking dan ooit tevoren, in staat is om woonvermogen op te bouwen. Vermogensopbouw is een van de hoofdredenen waarom het kopen van een woning zo gestimuleerd is (DiPasquale en Wheaton, 1994). Woonvermogen kan gebruikt worden als onderpand voor *asset-based welfare*, waarbij huishoudens hun bezittingen inzetten om sociale risico's op een individuele manier af te dekken (Doling en Ronald, 2010). Hierdoor zijn eigenaar-bewoners in potentie goedkopere burgers voor de staat dan huurders. Kunnen we concluderen dat de uitbreiding van het eigenwoningbezit in de laatste decennia op een succesvolle manier lagere sociaaleconomische groepen in staat heeft gesteld om vermogen op te bouwen? Niet noodzakelijkerwijs. Dit is sterk afhankelijk van *de manier waarop* het eigenwoningbezit is gestimuleerd. In hoeverre mensen met een verschillende sociale achtergrond en levensloop in staat zijn om het eigendom van hun woning op te zetten in een aanzienlijk vermogen is afhankelijk van het volkshuisvestingsregime.

Recent is een maatschappelijke discussie ontstaan over de grote vermogensongelijkheid in Europa. Het wordt steeds duidelijker dat

vermogensongelijkheid beschouwd moet worden als los onderdeel van de sociaaleconomische gelaagdheid van de samenleving, met andere onderliggende mechanismen dan inkomensongelijkheid. De toename van vermogensongelijkheid, zoals beschreven door Piketty (2014), wordt meer en meer beschouwd als een sociaal probleem. Terwijl het totale privévermogen in de meeste Europese landen na de Tweede Wereldoorlog rond 300% van het nationale inkomen schommelde, is deze ratio snel toegenomen na de financiële deregulering en veranderingen in de welvaartsstaat sinds de jaren tachtig van de twintigste eeuw. In het tweede decennium van de 21e eeuw zijn ratio's van 600% tot 700% niet ongebruikelijk (Piketty, 2014). De snelle toename van vermogens kan bijna geheel verklaard worden door de sponswerking van bewoonbaar vastgoed in de laatste decennia, hetgeen zich heeft vertaald in opgeblazen woningprijzen. Dit plaatst de uitbreiding van het eigenwoningbezit in een nieuw daglicht en legitimeert de volgende overkoepelende onderzoeksvraag: " Hoe ziet de woonvermogensverdeling eruit in Europese landen met verschillende volkshuisvestingsregimes, en hoe kunnen internationale verschillen verklaard worden uit een (interactie tussen) levensloop factoren en institutionele factoren?".

Belangrijkste bevindingen

In de eerste plaats draagt deze dissertatie bij aan een betere conceptualisering van het begrip woonvermogen. Eerdere studies richtten zich alleen maar op de uitkomsten van het accumulatieproces van woonvermogen, door woonvermogen simpelweg te benaderen als de marktwaarde van de woning minus eventuele hypotheekschulden (zie bijvoorbeeld Di (2007) of Appleyard en Rowlingson (2010). In deze dissertatie wordt woonvermogen gezien als zes dimensies die samen het accumulatieproces representeren. Dit geeft ruimte om de herkomst van woonvermogensongelijkheid te achterhalen. We onderscheiden drie statische en drie dynamische dimensies van woonvermogen. De statische dimensies (eigendom, aanschafprijs en hypotheekschuld bij aanschaf) representeren de hoeveelheid woonvermogen op het moment van aankoop, terwijl de drie dynamische dimensies (hypotheekaflossing, vermogenswinst/

verlies, transactiekosten) de ontwikkeling van de hoeveelheid woonvermogen door de tijd heen verklaren. Verschillende vormen van sociaaleconomisch, volkshuisvestelijk en ruimtelijk beleid hebben een afzonderlijke, en soms zelfs tegengesteld, effect op de bovengenoemde dimensies, en vormen de verdeling van woonvermogen over sociale klassen en leeftijdsgroepen.

Hoofdstuk 2 vangt aan met een overzicht van de eigendomsongelijkheid, woonvermogensongelijkheid en hypotheekschuldongelijkheid in 16 Europese landen. In dit hoofdstuk worden vier beroepsklassen (laag, midden, hoog en zelfstandigen) uit twee leeftijdscohorten met elkaar vergeleken (geboren tussen 1930-1949 en tussen 1950-1962). In alle onderzochte landen bezitten de hogere beroepsklassen significant meer woonvermogen dan de lagere beroepsklassen. Echter, de woonvermogensverdeling verschilt behoorlijk tussen de onderzochte landen. De twee leeftijdscohorten worden met elkaar vergeleken met het idee in het achterhoofd dat hun verschillen in hun woonsituatie (deels) te wijten zijn aan de condities waaronder zij de woningmarkt betraden (gemiddeld genomen maken Europeanen tussen hun 25e en 40e levensjaar de stap naar een koopwoning). De bovengenoemde cohortvergelijking werpt nieuw licht op beleidsveranderingen sinds de jaren tachtig van de vorige eeuw. Het oudere cohort heeft over het algemeen de stap naar een koopwoning gezet vóór de verruiming van de hypotheekmogelijkheden als een gevolg van de liberalisering van de hypotheekmarkt (in Noordwest Europa), of vóór de verkoop van sociale huurwoningen (in Zuid- en Centraal Europa), terwijl het jongere cohort over het algemeen hierna de woningmarkt betreden heeft. In Hoofdstuk 2 zijn de 16 onderzochte landen geclusterd in zeven 'woonvermogensaccumulatieregimes', gebaseerd op de verspreiding van het eigenwoningbezit tot de jaren tachtig van de twintigste eeuw, en de veranderingen in de politieke economie in de periode tussen 1980 en 2010. Tot de jaren tachtig kon Europa geclassificeerd worden in 'eigenaar-samenlevingen' rond de Middellandse Zee (zowel communistische als kapitalistische landen), 'huurder-samenlevingen' in Centraal Europa zowel communistische als kapitalistische landen) en een groep landen in Noord- en Noordwest Europa dat het pad

volgde van eigenwoningbezit-stimulering via subsidies en fiscale voordelen. De privatisering van sociale huurwoningen na de val ban het communisme heeft de politieke economie van een deel van de voormalige communistische eigenaar-samenlevingen (Hongarije, Slovenië) en huurder-samenlevingen (Tsjechië, Polen, Estland) veranderd. De deregulering van de hypotheekmarkt heeft het pad van een aantal landen dat al langer inzette op stimulering van het eigenwoningbezit (Nederland, Denemarken, Zweden), en van een enkele eigenaar-samenleving (Spanje) veranderd. Een deel van de landen heeft al deze veranderingen kunnen weerstaan: in een deel van de huurder-samenlevingen bleef de woningmarkt behoorlijk gereguleerd (Duitsland, Zwitserland, Oostenrijk), terwijl in een deel van de eigenaar-samenlevingen (Italië, Portugal) de familie een dominante rol bleef spelen in het verkrijgen van een woning.

De stimulering van het eigenwoningbezit kan zowel in een gelijkere als ongelijkere verdeling van woonvermogen resulteren, afhankelijk van de politieke economie in het land. Hoofdstuk 2 laat zien dat object subsidies voor betaalbare koopwoningen, zoals gebruikt in sommige Scandinavische landen, verbonden kunnen worden aan minder woonvermogensongelijkheid tussen beroepsklassen in het oudere geboortecohort, dat veelal de stap naar een koopwoning heeft gezet voordat deregulering haar intrede maakte op de hypotheekmarkt in de jaren tachtig van de twintigste eeuw. Een vergelijkbaar argument kan gemaakt worden voor de oudere generatie in de postcommunistische landen die geprofiteerd hebben van bouw van betaalbare (sociale / coöperatieve / publieke) huurwoningen wanneer ze de woningmarkt betraden, en de privatisering van dit vastgoed (tegen dumpprijzen) na de val van het communisme in de jaren negentig van de twintigste eeuw. De deregulering van hypotheekmarkt gaat samen met een ongelijkere verdeling van woonvermogen over beroepsklassen. Het heeft huishoudens met een lagere sociaaleconomische status, tot de economische crisis van 2007, de mogelijkheid gegeven om de stap naar een koopwoning te maken door het versoepelen van de hypotheek-eisen en het aanbieden van grotere hypotheekleningen. Vooral huishoudens met een lage sociaaleconomische status blijven tot ver na het bereiken van de wettelijke pensioenleeftijd, zwaar belegd

met schulden. Ironisch genoeg zijn het dus landen in het 'liberale woonvermogensaccumulatieregime', waar het eigenwoningbezit als een middel tot vermogensopbouw gezien wordt, waar het eigenwoningbezit niet altijd een middel tot vermogensopbouw is voor huishoudens met een lagere sociaaleconomische status.

In hoofdstuk 3 ligt de nadruk op woonvermogensongelijkheid die voortkomt uit de levensloop in plaats van sociale klasse, zoals in hoofdstuk 2. Dit hoofdstuk richt zich op één van de meest voorkomende én ingrijpende negatieve gebeurtenissen die zich gedurende de levensloop kan voltrekken: een scheiding. Na een scheiding zal ten minste één van de echtgenoten een nieuw huis moeten zoeken. Eerdere studies hebben al laten zien dat dit (vooral voor vrouwen) vaak een huurwoning betreft. Toch is een merendeel van gescheiden individuen in staat om opnieuw naar een koopwoning te verhuizen voordat ze de pensiongerechtigde leeftijd bereiken. De resultaten van dit hoofdstuk wijzen uit dat zij die na een scheiding in een koopwoning blijven wonen, of later in de levensloop opnieuw een woning kopen na een periode in de huursector te hebben vertoefd, tot 30% minder woonvermogen te hebben opgebouwd dat echtparen die nooit gescheiden zijn. Dit komt omdat zij vaak naar kleinere woningen verhuizen (soms door krapte op de woningmarkt en de wil om in de nabijheid van kinderen te blijven wonen) en door een verlenging van de hypotheekschuld. Hertrouwen blijkt een goede strategie om negatieve effect van een scheiding weg te poetsen. Het verschil tussen getrouwde en hertrouwde individuen zeer beperkt. Wel is het opvallend dat gescheiden vrouwen, controlerende voor inkomen, over het algemeen minder woonvermogen opbouwen dan hun mannelijke tegenpolen. In de laatste decennia is het negatieve effect van een scheiding op het opbouwen van woonvermogen afgenomen door de toegenomen arbeidsmarkt participatie sinds de jaren '70. Voor mannen is het negatieve effect van een scheiding versterkt, met name omdat een dubbel inkomen in veel gevallen noodzakelijk is geworden om een woning te kunnen kopen.

Het negatieve effect van een scheiding op het opbouwen van woonvermogen verschilt behoorlijk tussen de landen die in Hoofdstuk 3 vergeleken worden. Het negatieve effect is sterker in landen die het

gemakkelijker maken om opnieuw een koopwoning aan te schaffen. Het gaat hierbij vooral om landen met een gemiddelde omvang van het eigenwoningbezit waar de hypotheekverstrekking ruim is, zoals Zweden, Denemarken en Nederland. In deze landen kunnen gescheiden mannen en vrouwen met een lagere sociaaleconomische status opnieuw een koopwoning aanschaffen door de afbetaling van de woning vooruit te schuiven middels hypotheken met lange looptijden (de aflossingsvrije hypotheek als meest extreme voorbeeld). Bovendien is het gebruikelijk dat getrouwde stellen in deze landen, aangespoord door de liberale hypotheekverstrekking, wooncarrière maken en doorverhuizen naar grotere en duurdere koopwoningen, waardoor ze 'weggroeien' van gescheiden woningbezitters. Een veel kleinere kloof tussen het woonvermogen van gescheiden mannen en vrouwen en getrouwde stellen kan gevonden worden in conservatieve welvaartsstaten met uitgebreide alimentatie-regelingen (voor de vrouw/moeder). In deze landen is het ongebruikelijk dat vrouwen opnieuw een koopwoning aanschaffen, maar een aanzienlijk deel van de gescheiden vrouwen wordt in staat gesteld om in de voormalige echtelijke woning te blijven wonen. Zij die in hun koopwoning blijven wonen, zetten de opbouw van vermogen voort zoals dat voor de scheiding het geval was.

Hoofdstuk 4 benadert vermogensopbouw in de koopwoning als *proces*. Terwijl de eerste twee empirische bijdragen aan dit proefschrift zich richten op het opgebouwde woonvermogen van ouderen (50-plussers), volgt dit hoofdstuk de verhuismobiliteit van Zweedse individuen geboren tussen 1970 en 1975, om in kaart te brengen hoe hun ruimtelijke- en woonbeslissingen bijdragen aan vermogenswinsten en verliezen (één van de dimensies van woonvermogensongelijkheid). Zweden wordt over het algemeen gezien als schoolvoorbeeld van een universele en sociaal-democratische welvaartsstaat, maar heeft sinds de jaren '90 van de twintigste eeuw één van de meest liberaal-georiënteerde woonregimes van Europa. As een gevolg van de deregulering van de hypotheekmarkt en de privatisering van voormalige sociale woningbouw hebben Zweedse steden een enorm hevig proces van gelijktijdige *gentrification* én sociale neergang van buurten doorgemaakt. Dit heeft de sociaal-ruimtelijke ongelijkheid

in de Zweedse stad enorm doen toenemen. De woonkeuzes van mensen met een verschillende sociale achtergrond zijn de motor onder dit proces van sociale uitsortering. Huishoudens met een hoge sociaaleconomische status hebben door de ruimte hypotheekverstrekking en de verkoop van sociale huurwoningen de mogelijkheid gekregen in elkaars nabijheid te gaan wonen. Huishoudens met een lage sociaaleconomische status zijn naar andere buurten verhuisd omdat de influx van huishoudens met een hoge sociaaleconomische status de prijzen in andere buurten heeft opgedreven, hetgeen wonen in deze 'betere buurten' onbetaalbaar heeft gemaakt voor hen. Voor woningeigenaren in een buurt, is het de sociale status van de instroom van nieuwe bewoners die bepaalt hoe de status van de buurt zich ontwikkelt. De instroom van autochtone bewoners met een hoog opleidingsniveau gaat samen met stijgende woningprijzen. Op basis van Zweedse registerdata laat Hoofdstuk 4 zien dat individuen die behoren tot de lagere inkomensdecielen significant minder vermogenswinsten hebben gemaakt op de woningmarkt tussen 1995 en 2010. Ook laten de resultaten in Hoofdstuk 4 zien dat individuen met een migratieachtergrond significant minder vermogenswinsten hebben gemaakt op de woningmarkt dan autochtone Zweden. De lagere vermogenswinsten van allochtonen en individuen met een lage sociaaleconomische status zijn een gevolg van het feit dat zij onevenredig vaak woonachtig zijn in buurten waar het aantal bewoners met een migratieachtergrond of een laag opleidingsniveau hoog is. Belangrijker nog, ze wonen vaak in buurten waarvan de sociale status tussen 1995 en 2010 is gedaald (het aandeel allochtonen en individuen met een laag inkomen is toegenomen). In andere woorden: de veranderende ruimtelijke uitsortering van huishoudens over de stedelijke ruimte, die het gevolg is van decennialange liberaal-georiënteerde hervormingen op de woningmarkt, heeft de vermogenswinsten gepolariseerd, kan geconcludeerd worden wanneer autochtonen en allochtonen, en individuen met een hoge en een lage sociaaleconomische status vergeleken worden.

Het laatste empirische hoofdstuk van deze dissertatie gaat in op de verbinding tussen woonvermogen en financieel vermogen.

Alleen door de accumulatie van woonvermogen door verschillende sociale groepen te vergelijken met de accumulatie van financieel vermogen door diezelfde groepen, kan een uitspraak gedaan worden over het gevolg van de verdeling van woonvermogen voor de totale vermogensongelijkheid in verschillende landen. Als woonvermogen en financieel vermogen functioneren als communicerende vaten, kan verwacht worden dat het totale vermogen van huurders en kopers ongeveer gelijk is. Het vermogen is dan alleen op een verschillende manier opgepot. Omdat eigenwoningbezit onderdeel is van een op financiële zekerheid gerichte levensstijl, en omdat het eigenwoningbezit in veel landen (indirect) wordt gesubsidieerd, hebbeneigenaar-bewoners,ookwanneergecontroleerdwordtvoorhun inkomen, meer vermogen dan huurders. Conclusie: woonvermogen en financieel vermogen functioneren niet als communicerende vaten. Dit betekent dat de woonvermogensongelijkheid tussen verschillende beroepsklassen (zie Hoofdstuk 2) en tussen mensen die een ingrijpende negatieve gebeurtenis (een scheiding) hebben meegemaakt en zij die dit niet hebben meegemaakt (zie Hoofdstuk 3), niet (deels) opgeheven wordt door een grotere accumulatie van financieel vermogen door sociale groepen die weinig woonvermogen accumuleren.

De omvang van de kloof tussen huurders en kopers wat betreft vermogensopbouw verschilt sterk tussen landen met een verschillende welvaartsstaat regime en volkshuisvestingsregime. Historisch gezien bestaat er een verband tussen beide. In landen met veel eigenwoningbezit, zijn de pensioenen lager. Woningeigenaren hebben namelijk minder financiële ruimte om bij te dragen aan collectieve voorzieningen tijdens hun werkende leven (wanneer ze hun hypotheek afbetalen), en hebben minder inkomen nodig na de pensioengerechtigde leeftijd, wanneer ze de woning afbetaald hebben. Sinds de jaren tachtig is het eigenwoningbezit in een aantal landen gestimuleerd op een gefinancialiseerde manier, hetgeen geleid heeft tot een enorme toename van de woningschulden en een woningprijsexplosie. Deze schulden worden op hun beurt gedekt door de ruime pensioenpotten in deze landen. Het ligt voor de hand te denken dat de kloof tussen huurders en kopers

wat betreft vermogensopbouw groter is in landen waar het eigenwoningbezit minder gestimuleerd is. Hoofdstuk 5 laat zien dat dit niet noodzakelijkerwijs klopt. De grootste vermogenskloof kan gevonden worden in landen waar het eigenwoningbezit nauwelijks van overheidswege aangemoedigd is, en woningprijzen vrijwel gelijk zijn gebleven (Duitsland en Oostenrijk). In deze landen bouwen woningeigenaren snel vermogen op omdat het maximale leenbedrag laag is en de lening snel terugbetaald moet worden. Bovendien investeert een aanzienlijk deel van de woningeigenaren in tweede woningen die verhuurd worden. De kleinste vermogenskloof bestaat in de landen die het eigenwoningbezit op een gefinancialiseerde manier – en via subsidies – hebben gestimuleerd (Nederland, Spanje, Luxemburg, Cyprus). Dit heeft voornamelijk te maken met de beperkte aflossing van de woningschulden.

Wat betekent dit voor het woonbeleid?

De publicatie van van Piketty's (2014) invloedrijke studie naar vermogensongelijkheid heeft in vele Europese landen geleid tot hevige politieke discussies. De uitkomst van deze discussies is dat in brede kringen wordt erkend dat vermogen steeds grotere gevolgen heeft voor de levenskansen van mensen. Vooral de levenskansen van de lagere sociaaleconomische groepen kunnen leiden onder een toename van de vermogensongelijkheid. Terwijl Europese linkse en sociaaldemocratische partijen zich van oudsher gericht hebben op inkomensherverdeling om een rechtvaardige samenleving op te bouwen, zou het tegengaan van vermogensongelijkheid wel eens een steeds grotere rol in een 'nieuw links verhaal' kunnen gaan spelen. Liberalen snappen het wel. Al decennialang is vermogensopbouw onder lagere sociaaleconomische groepen een stokpaardje van liberale politieke partijen. Het vormt de legitimatie van de golf van dereguleringen in financiële sector die heeft plaatsgevonden sinds deze partijen sinds de jaren tachtig van de twintigste eeuw steeds vaker regeringsverantwoordelijkheid genomen hebben, en heeft geleid tot de huidige niveaus van vermogensongelijkheid in Europa. In de nasleep van 'het Piketty-debat' is vaak benoemd dat het aanpakken van de extreem ongelijke verdeling van vermogen ingewikkeld is, omdat

het een hulpbron betreft die vrij over de wereld kan verplaatsen, naar een locatie waar veel rendement verwacht wordt. Het opheffen van kapitaalbeperkingen als onderdeel van het dereguleren van financiële markten in heel Europa heeft de effectiviteit van nationale oplossingen zoals een Tobin-taks (een belasting op financiële transacties, genoemd naar Nobel Prijswinnaar James Tobin) sterk ingeperkt. In het beleidsdebat is men erg snel over een essentiële factor heengestapt: de groei van de hoeveelheid kapitaal ten opzichte van het nationale inkomen is voornamelijk gedreven door een toename van het woonvermogen – een uiterst honkvaste vorm van vermogen. Het is daarom wellicht realistischer vermogensongelijkheid in de eerste plaats aan te pakken op de woningmarkt (woonvermogen is de grootste bron van vermogen voor de meeste huishoudens) dan op de financiële markt (hoewel de verdeling van financieel vermogen ontegenzeggelijk een stuk ongelijker is). Woonvermogen is direct verbonden aan een niet-verplaatsbaar object dat daardoor altijd binnen dezelfde jurisdictie blijft vallen. Aan de andere kant kan woonvermogensongelijkheid niet alleen via woningmarktbeleid opgelost worden. De hypotheekproducten die het voor veel mensen mogelijk maken om de stap naar een koopwoning te zetten, worden verkocht op de internationale kapitaalmarkt.

De empirische hoofdstukken van deze dissertatie wijzen op vier mechanismen die verklaren waarom woonvermogensongelijkheid groter is in sommige landen dan in andere landen. In de eerste plaats vergroot een opwaartse prijsontwikkeling op de woningmarkt het potentieel voor een toename van de woonvermogensongelijkheid. Een stijging van de woningprijzen stelt zittende woningeigenaren namelijk in staat om hun vermogenswinsten te gebruiken om een volgende stap in hun wooncarrière te zetten, terwijl het potentiele kopers aanmoedigt om de markt voor koopwoningen te betreden. Normaal gesproken neemt de betaalbaarheid van een koopwoning af door het stijgen van de prijzen. Echter, de stijging van de woningprijzen in een aantal – vooral Noordwest Europese – landen is het gevolg van de deregulering van de hypotheekmarkt binnen een situatie van grote (indirecte) subsidies op eigenwoningbezit, hetgeen veroorzaakt dat eenzelfde groep potentiele kopers met een vergroot budget (door

de soepelere hypotheekverstrekking) op dezelfde woningen blijft bieden. Dit heeft een prijsopdrijvend effect. Ten tweede gaat de toename van hypotheekschulden gepaard met een toename van de woonvermogensongelijkheid. Een gefinancialiseerde toename van het eigenwoningbezit stelt lagere-middenklasse huishoudens in staat om de stap naar een koopwoning te zetten door de woonquote betaalbaar te houden door middel van een verlenging van de hypotheekduur. De hogere middenklasse, aan de andere kant, is in staat om de hypotheek sneller af te lossen en daarmee aantrekkelijkere voorwaarden af te dwingen. De combinatie van structureel opgeblazen woningprijzen en verhoogde hypotheekschulden bindt huishoudens rechtstreeks aan de financiële markt, waarvan ze afhankelijk zijn om in hun vraag naar woonruimte te voorzien. De hoge hypotheekschulden van de lagere middenklasse in landen waar het eigenwoningbezit op een gefinancialiseerde manier is gestimuleerd, kunnen bijdragen aan een vergroting van de algemene vermogensongelijkheid, wanneer deze schulden als vermogen op de balans van personen bovenin de vermogensverdeling komen te staan. Ten derde is de toename van de sociaal-ruimtelijke ongelijkheid, die veel Europese steden hebben doorgemaakt sinds de jaren tachtig van de twintigsteeeuw, een drijvende kracht achter woonvermogensongelijkheid. De verhuisbewegingen die gepaard gaan met een meer markt-gestuurde uitsortering van individuen over de stedelijke ruimte, leiden tot een sterke toename van de woningprijzen in *gentrification* buurten en buurten waar de hoge sociaaleconomische status herbevestigd wordt, terwijl ze een negatieve prijsspiraal op gang brengen in buurten met een lage sociaaleconomische startpositie of een grote hoeveelheid allochtone bewoners. Lokale, door gemeenten gesubsidieerde 'stedelijke groei coalities', gericht op het aantrekken van internationale investeringen en hooggeschoolde arbeidskrachten faciliteren de toename van de sociaal-ruimtelijke ongelijkheid, en indirect vermogensongelijkheid. Ten vierde, een mechanisme dat doorheen het hele proefschrift is erkend als mechanisme onder woonvermogensongelijkheid, is de toename van inkomensongelijkheid die vooral universele welvaartsstaten heeft gekenmerkt sinds de jaren tachtig onder invloed van veranderend sociaal beleid. Wanneer de inkomensverdeling

gepolariseerd is, vertaalt dit zich in een polarisering van de koopkracht op de woningmarkt. Het inkomen (en de stabiliteit daarvan), bepaalt namelijk de omvang van de hypotheeklening die banken bereid zijn om te verstrekken, hoewel hierin aanzienlijke verschillen bestaan tussen landen, afhankelijk van de regulering van de hypotheekmarkt. Het inkomen bepaalt wat men uit kan geven aan de aanschaf van een woning. Het is daarom dat de lagere- en middengroepen in landen met een gelijkere inkomensverdeling duurdere woningen kunnen kopen – en als gevolg meer vermogen kunnen opbouwen. Dir verkleint op den duur de woonvermogensongelijkheid.

Als opgaande woningprijzen, een toename van de hypotheekschuld, een groei van de inkomensongelijkheid en stijging van sociaal-ruimtelijke ongelijkheid de mechanismen zijn die de huidige verdeling van woonvermogen hebben gevormd, welke beleidsmaatregelen zijn dan geschikt om woonvermogensongelijkheid tegen te gaan? Een her-regulering van de hypotheekmarkt zal hoogstwaarschijnlijk de woningprijsontwikkeling temperen en de hoge woningschulden doen afnemen. Een bijkomend gevolg hiervan is dat het eigenwoningbezit buiten het bereik komt te liggen van een deel van de lagere middenklasse. Het gevolg van zo een beleidsomslag kan ingeschat worden op basis van een blik op de Duitssprekende landen in Europa, waar een conservatief hypotheek systeem, gecombineerd met prikkels om te investeren in huurwoningen, al decennialang bestaat. Nu woningeigenaren (juist) hier in toenemende mate investeren in huurwoningen in de steden (bijvoorbeeld voor studerende kinderen), ligt een toename van de woonvermogensongelijkheid ook hier op de loer. Hoofdstuk 5 zien dat de vermogenskloof tussen kopers en huurders hierdoor tot de grootste in Europa behoort. Het historische voorbeeld van gedecommodificeerd eigenwoningbezit in de Scandinavische landen in de decennia na de Tweede Wereldoorlog, bewijzen dat een conservatief hypotheeksysteem kan samengaan met een flinke groei van het aantal koopwoningen, én beperkte woonvermogensongelijkheid (Bengtsson et al., 2013; Hedin et al., 2012). Overheidssubsidies op eigenwoningbezit geven vooral lagere middenklasse huishoudens de mogelijkheid om de stap naar een koopwoning te zetten zonder enorme schulden aan te gaan. Deze

vorm van overheidssubsidies dragen daarom direct bij aan een gelijkere verdeling van vermogen, zonder individuen en huishoudens te verbinden aan de financiële markt, waar de schulden van de lagere sociaaleconomische groepen worden omgezet in vermogen voor de rijken. Hoofdstuk 4 toont aan dat vermogenswinsten een belangrijke bron van woonvermogensongelijkheid zijn binnen de Zweedse context, en hoogstwaarschijnlijk ook in andere Europese landen die een vergelijkbare stijging van de woningprijzen hebben doorgemaakt na de liberalisering van de hypotheekmarkt, zoals Nederland, Denemarken, Ierland en het Verenigd Koninkrijk. Vermogenswinsten worden vrijwel nergens belast, maar een dergelijke belasting zou woningspeculatie en een toename van de woonvermogensongelijkheid kunnen tegengaan.

De sociaal-ruimtelijke polarisering die heeft bijgedragen aan toegenomen niveaus van woonvermogensongelijkheid zijn gedeeltelijk het gevolg van een neo-liberale heroriëntatie van lagere overheden wat betreft ruimtelijke ordening (Tasan-Kok en Baeten, 2011). Onderzoek naar *gentrification* heeft laten zien dat de recente golven van *gentrification*, sinds de jaren negentig van de twintigste eeuw, steeds meer worden veroorzaakt door overheidsbeleid (Uitermark et al. 2007). Lokale overheden faciliteren – en organiseren – investeringen in centraal gelegen buurten met een hoog potentieel om te veranderen in plaatsen met een aantrekkelijk hoog-stedelijk vestigingsklimaat voor hogeropgeleide (internationale) kenniswerkers. Het gebruik van publiek geld voor dergelijke doeleinden is doorgaans gelegitimeerd door een ideologie die het aantrekken van 'talent' noodzakelijk acht voor het verbeteren van de stad haar positie in de internationale stedelijke hiërarchie, hetgeen zich uiteindelijk zou moeten vertalen in een toename van de werkgelegenheid voor lagere sociaaleconomische groepen. Studies uit verschillende Europese landen bewijzen keer op keer dat staatsgeleide *gentrification* leidt tot een meer markt-geleide uitsortering van individuen over de stedelijke ruimte, zelf wanneer het niet direct leidt tot het gedwongen verhuizingen van inwoners met een lage sociaaleconomische status. Zowel lokale als landelijke vormen van ruimtelijk beleid kunnen bijdragen aan een omkering van deze trend. Steden hebben beleidsinstrumenten om hun woningvoorraad

te diversifiëren op basis van eigendom (koop of huur) en grootte. Het beschermen van sociale woningbouw, of betaalbare huurwoningen in populaire buurten is één van de manieren waarop gemeenten de steeds meer markt-gedreven verdeling van verschillende sociale klassen en etnische groepen over de stedelijke ruimte kan tegengaan. Bovendien hebben selectieve investeringen in de gebouwde omgeving hebben het in zich om processen op de woningmarkt fundamenteel te veranderen. Het versterken van buurten met een consistent lage sociaaleconomische status kan resulteren in een instroom van kapitaalkrachtige bewoners en een stijging van de woningprijzen, en daarom tot vermogensopbouw onder de zittende bewoners met een lagere sociaaleconomische positie. Hoewel zo een strategie een nivellerend effect zou kunnen hebben op de woonvermogensverdeling, laten ervaringen in verschillende Europese steden zien dat gemeenten meestal niet in staat zijn om een totale verandering van de bevolking tegen te gaan. Zo een vorm van overheids-gedreven *gentrification* is daarom sterk bekritiseerd voor haar bijdrage aan sociaal-ruimtelijke ongelijkheid.

Tenslotte hebben veranderingen in de verdeling en stabiliteit van arbeidsmarkinkomen een gevolg voor de koopkracht van verschillende sociaaleconomische groepen op de woningmarkt, en daarom op de woonvermogensverdeling. Terwijl middels woonbeleid en ruimtelijke ordeningsbeleid het gedeelte van de woonvermogensongelijkheid dat voortkomt uit het functioneren van de woningmarkt kan worden tegengegaan, kan alleen welvaartsstaatbeleid het gedeelte van de woonvermogensongelijkheid dat voortkomt uit het functioneren van de arbeidsmarkt tegengaan. Mondialisering en afslankingen van de welvaartsstaat worden genoemd als de belangrijkste oorzaken van de plotselinge toename van de inkomensongelijkheid vanaf de jaren tachtig van de vorige eeuw in de meeste West-Europese landen (Alderson and Nielsen, 2002; Harrison and Bluestone, 1990). Onder druk van de toegenomen internationale concurrentie is er één groep landen geweest die toegestaan hebben dat de inkomens van de laagstgeschoolden zouden dalen, terwijl een andere groep landen hebben toegestaan dat een schil van flexibele werkgelegenheid is ontstaan (Bonoli, 2005). De manier waarop de welvaartstaat

omgaat met nieuwe sociale risico's zoals scheiding of terugkerende werkloosheid heeft een impact op de mogelijkheid om woonvermogen op te bouwen voor verschillende sociale groepen, wordt duidelijk uit Hoofdstuk 3. Een stabiel inkomen is noodzakelijk om de stap naar een koopwoning te zetten, omdat banken het risico op wanbetaling anders te hoog inschatten om een hypotheek te kunnen verstrekken. Twee vormen van sociaal beleid kunnen daarom bijdragen aan een gelijkere verdeling van woonvermogen: arbeidsmarktreguleringen die bijdragen aan normaliseren van vaste contracten en het verkleinen van inkomensverschillen, en welvaartsstaatarrangementen die inkomensstabiliteit garanderen wanneer oude en nieuwe sociale risico's zich voordoen. Zulke vormen van beleid zouden vooral ten goede komen aan de jongere geboortecohorten omdat zij het zwaarst getroffen zijn door de huidige golf van mondialisering en welvaartsstaat-afslanking.

De belangrijkste boodschap voor beleidsmakers is dat het vraagstuk van de toenemende woonvermogensongelijkheid niet opgelost kan worden door middel van de implementatie van nieuwe vormen van woonbeleid alleen. Het vergt een combinatie van arbeidsmarkt-, ruimtelijke ordenings-, financieel en woonbeleid om de toename van de woonvermogensongelijkheid die heeft plaatsgevonden vanaf de jaren tachtig van de twintigste eeuw, op lange termijn te kunnen terugbrengen. Uiteindelijk kunnen de huidige hoge niveaus van woonvermogensongelijkheid, die deels voortkomen uit de hoge woonschulden van bepaalde sociale groepen, alleen geleidelijk verdwijnen wanneer de inkomens sneller groeien dan woningprijzen. Hiervoor is het echter noodzakelijk om het 'contract tussen kapitaal en arbeid' grondig te herzien.

Over het hele continent is de uitbreiding van het eigenwoningbezit gelegitimeerd door het idee dat het gunstig is dat ook lagere sociaaleconomische strata vermogen kunnen opbouwen. Hoewel deze dissertatie zeer kritisch is op de uitkomsten van beleid dat op deze aanname is gestoeld, moet ze niet gelezen worden als een kritiek op het idee dat vermogensopbouw onder zwakkere sociaaleconomische groepen gestimuleerd moet worden *an sich*. Het belangrijkste argument dat in dit proefschrift gepresenteerd is, is dat

er verschillende strategieën bestaan om het eigenwoningbezit uit te breiden, met verschillende uitkomsten voor de vermogensopbouw van afzonderlijke sociale groepen. Met andere woorden, als vermogensopbouw onder de lagere sociaaleconomische groepen het beleidsdoel is, is een beleidsstrategie die resulteert in een gelijkere verdeling van woonvermogen waarschijnlijk het meest geschikt. Er is nog een reden om kritisch te zijn op beleid dat poogt bij te dragen aan de opbouw van vermogen in de lagere sociaaleconomische groepen door het eigenwoningbezit te stimuleren. De uitbreiding van het eigenwoningbezit kan dan gezien worden als onderdeel van een herstructurering van de welvaartsstaat, waarbij huishoudens geacht worden om in hun eigen sociale noden te voorzien door middel van hun woonvermogen. Het is echter de vraag in hoeverre de daling van sociaal kapitaal (aanspraken op sociale voorzieningen van de welvaartsstaat) wordt gecompenseerd door een stijging van het woonvermogen. Lagere sociaaleconomische groepen bouwen namelijk minder woonvermogen op, ervaren minder vermogenswinsten en hebben een meer eendimensionaal vermogensportfolio, waardoor het onwaarschijnlijk dat zij voldoende woonvermogen hebben om sociale risico's op te vangen. Huurders, die helemaal geen woonvermogen opbouwen, ondervinden zelfs de gevolgen van een verkleining van de sociale zekerheid zonder dat zij (gesubsidieerd) vermogen kunnen opbouwen in een koopwoning. In de komende jaren zal het in toenemende mate een uitdaging worden om woonvermogensongelijkheid te beteugelen of te compenseren.

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dat me zo na aan het hart ligt. Wat betreft kwantitatief onderzoek kon ik klok en klepel nauwelijks van elkaar onderscheiden aan het begin van dit promotietraject. Je hebt me, door me telkens nieuwe aanknopingspunten mee te geven, de kans gegeven zélf kennis te verwerven en mezelf te ontwikkelen, zoals dat een echte mentor betaamt. Bovendien heb ik heel veel van je geleerd over het academische leven: publiceren, reviewen en departementspolitiek, we hebben er uren over gesproken. Stéfanie, vier jaar lang hebben we veel meer dan alleen een kamer gedeeld. Ik kon bij je terecht voor onderzoeks-gerelateerde vragen, maar ook voor relatieadvies: zeer succesvol. Ik ben heel erg gesteld geraakt op je openheid en eerlijkheid. Daarnaast wil ik de overige leden van het HOWCOME team, Philipp Lersch, Christa Hubers en Adriana Soaita bedanken voor de scherpe en gezellige team meetings waar we grote discussies over kleine wetenschappelijke details gevoerd hebben. Jullie inzichten hebben mijn kijk op de wereld voor altijd verrijkt.

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rakija, maar bier gedronken hebben. Een andere locatie waar ik door het schrijven van dit proefschrift beland ben is Uppsala (Zweden). Ik ben heel content met het vertrouwen en de vrijheid die Caroline me gegeven heeft om mezelf en mijn onderzoek op deze plek verder te ontwikkelen. Mijn herinneringen aan Uppsala zijn voor altijd verbonden aan Dominic. Domo, je hebt me op sleeptouw genomen en kennis laten maken met alle geneugten van het Zweedse leven. Ik denk met heel veel plezier terug aan onze avonden in de *nationer*, een live optreden van Günther en onze excursies naar verstopplekken van dakloze Roemeense migranten. Bovendien vind ik het prachtig dat ik de geboorte van mijn kleine vriendin Valentina van zo dichtbij heb mogen meemaken.

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Curriculum Vitae

Barend Wind was born on November 15, 1989 in Amsterdam, the Netherlands. He studied Human Geography and Sociology at the University of Amsterdam. For his Master thesis, he reviewed the privatisation of social housing in the Netherlands in terms of neighborhood capital on behalf of the Ministry of the Interior. In 2013 he started as a PhD candidate at Tilburg University on the European Research Council-funded HOWCOME project, headed by Dr. Caroline Dewilde. This project investigates the interplay between changing housing and trends in socio-economic inequality. Currently, he is employed as Assistant Professor at the department of socio-spatial planning at the University of Groningen.

Barend Wind

Housing Wealth in Europe

Institutions and Inequality

Over the past thirty years, a silent societal transformation has taken place across Europe: homeownership rates have increased rapidly, and the meaning of owning one's home has changed. The upswing of homeownership rates in continental Europe is the result of government interventions and deregulations of mortgage- and housing markets, which encouraged (lower-income) households to enter homeownership at a younger age. Whereas housing was previously mainly defined by its shelter function, the market-driven expansion has increased the importance of its investment function, both for households and the economy at large. The significance of housing for the socio-economic stratification has increased, but is still under-researched. This dissertation seeks to explain how institutional configurations generate or mitigate housing wealth inequality from an international-comparative perspective. It gives insights in the impact of housing market dynamics on the organization of the life course and the consequences for housing wealth accumulation. Ultimately, it presents an alternative view on one of the major political challenges of contemporary Europe